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STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the matter of the Petition of)
MONTEREY COASTKEEPER, SANTA)
BARBARA CHANNELKEEPER and SAN)
LUIS OBISPO COASTKEEPER For)
Review of Action by the California)
Regional Water Quality Control Board,)
Central Coast Region, in adopting the)
Conditional Waiver of Waste Discharge)
Requirements for Discharges From Irrigated)
Lands, Order No. R3-2010-0040)

**PETITION FOR REVIEW OF
CALIFORNIA REGIONAL
WATER QUALITY CONTROL
BOARD, CENTRAL COAST
REGION ORDER NO. R3-2010-0040**

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

INTRODUCTION

Monterey Coastkeeper (“MCK”), Santa Barbara Channelkeeper (“SBCK”) and San Luis Obispo Coastkeeper (“SLOCK”) (collectively “Petitioners”) submit this petition for review of a regional board action that was improper under California Water Code Section 13269 and inappropriate in light of ongoing water quality degradation on the Central Coast. Pursuant to California Water Code Section 13320, MCK, SBCK and SLOCK hereby petition the State Water Resources Control Board (“State Board”) for review of the California Regional Water Quality Control Board, Central Coast Region’s (“Regional Board”) Conditional Waiver of Waste Discharge Requirements for Discharges of Irrigated Lands, Order No. R3-2010-0040 (“Order”). The Order is not consistent with the Water Quality Control Plan for the Central Coast Region (“Basin Plan”), is not in the public interest, and is not supported by evidence in the record.

I. NAMES AND CONTACT INFORMATION OF PETITIONERS

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**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

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II. SPECIFIC ACTION OF THE REGIONAL BOARD TO BE REVIEWED

Petitioners seek review of the Regional Board's adoption of the Conditional Waiver of Waste Discharge Requirements for Discharges of Irrigated Lands, Order No. R3-2010-0040 (renewing Order No. R3-2004-0117). A copy of the Order is attached hereto as Exhibit A.

III. DATE ON WHICH THE REGIONAL BOARD ACTED

The Regional Board adopted Order No. R3-2010-0040 on July 8, 2010.

IV. FULL AND COMPLETE STATEMENT OF REASONS THE REGIONAL BOARD'S ACTION WAS INAPPROPRIATE AND IMPROPER

Order No. R3-2010-0040 violates California Water Code Section 13269, because it is not consistent with the Central Coast Region Basin Plan, and it is not in the public interest. The Regional Board abused its discretion by adopting an Order predicated on findings that are not supported by evidence in the record.

Hundreds of water segments and many groundwater drinking water sources within the jurisdiction of the Regional Board have been contaminated with nitrates, pesticides, sediment and other pollutants as a result of agricultural activities. Under the Porter-Cologne Water Quality Control Act ("Porter-Cologne"), agricultural discharges of pollutants are subject to regulation through waste discharge requirements (WDRs).

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

[WDRs] shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, [and] the need to prevent nuisance

(Cal. Water Code § 13263(a).) In the absence of a WDR, the discharge of pollutants is generally prohibited. (Cal. Water Code § 13264(a).) State or Regional Boards may conditionally waive WDRs, however, where “the waiver is consistent with any applicable state or regional water quality control plan and is in the public interest.” (Cal. Water Code § 13269(a)(1).) Such conditional waivers may not exceed five years in duration, but may be renewed in increments of five years or less upon review by the appropriate board. (*Id.* at §§ 13269(a)(2), (f).)

The Regional Board first adopted a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, Order No. R3-2004-0117 (“2004 Order”), for the Central Coast Region on July 9, 2004. A copy of the 2004 Order is attached hereto as Exhibit B. The 2004 Order was informed by an Agricultural Advisory Panel (“AAP”) comprised of stakeholder representatives from agricultural interests and environmental organizations, including SBCK and the Environmental Defense Center (“EDC”).

The Regional Board found the 2004 Order to be in the public interest, per Water Code Section 13269(a)(1), because:

(1) [I]t include[d] conditions that are intended to reduce and prevent pollution and nuisance and protect the beneficial uses of the waters of the state, [and] (2) it contain[ed] more specific and more stringent conditions for protection of water quality compared to existing regulatory programs

(2004 Order at p. 3.) When the 2004 Order was adopted, Regional Board staff forecast that “at the end of the first [five-year] waiver cycle, the program [would] be evaluated and revised as necessary as part of the waiver review process.” (Regional Board Staff Report for July 8, 2004,

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

Item No. 3, at p. 17, attached hereto as Exhibit C.) For example, the 2004 Order states that in time “increased reporting and monitoring may be required in order to ensure that water quality is improving.” (2004 Order, *supra*, at p. 3.) The 2004 Order expired in July 2009.

Regional Board staff convened a second AAP, which included MCK, SBCK and EDC, in December 2008. This AAP was tasked with discussing proposed updates to the 2004 Order, to be included in a revised conditional waiver that would meet the requirements of Water Code Section 13269(a)(1). In particular, staff indicated that “new requirements” are “necessary to directly address and resolve the major water quality issues associated with irrigated agriculture.” (Letter from Regional Board Staff to AAP, Dec. 12, 2008, at p. 1, attached hereto as Exhibit D.) Specifically, Regional Board staff indicated that the 2004 Order would be “revised to require growers and property owners to demonstrate compliance with the following conditions per defined schedules”:

- Eliminate toxic discharges of agricultural pesticides to surface waters and groundwater
- Reduce nutrient discharges to surface waters to meet nutrient standards
- Reduce nutrient discharges to groundwater to meet groundwater standards
- Minimize sediment discharges from agricultural lands
- Protect aquatic habitat (riparian areas and wetlands) and their buffer zones

(*Id.*) Staff indicated that while some regulated entities have improved agricultural operations to benefit water quality, “other growers are not making progress, and severe water quality problems continue.” (*Id.* at p. 2.) For example, “the food safety issue has resulted in some growers removing riparian habitat and buffer zones on and around irrigated agricultural fields, which is a direct violation of the Basin Plan.” (*Id.* at p. 3.)

Initially, the AAP was convened to meet for approximately five meetings between December 2008 and April 2009. (*Id.* at p. 4.) However, when the 2004 Order expired in July

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

2009, the AAP was still engaged in substantive internal discussion, and Regional Board staff opted to extend the stakeholder input process past July. On July 10, 2009, as recommended by staff, the Regional Board adopted Order No. R3-2009-0050, which renewed the 2004 Order in its extant form for one additional year.

Ultimately, members of the AAP were unable to reach consensus with Regional Board staff about the direction of a revised Order, and the AAP dissolved at the conclusion of its September 22, 2009, meeting. Regional Board staff then solicited public comment on the 2004 Order and proposed revisions. MCK, SBCK, EDC and others submitted a letter on December 2, 2009, which explained that the 2004 Order is no longer adequate to protect water quality and does not meet the requirements of Water Code Section 13269(a)(1). (Letter from EDC, MCK and SBCK to Regional Board, Dec. 2, 2009, attached hereto as Exhibit E.)

After receiving input on the 2004 Order and proposed revisions, Regional Board staff released a new Draft Order for public comment on February 1, 2010. The Draft Order is attached hereto as Exhibit F. The Draft Order includes components that are necessary for the waiver to be consistent with Water Code Section 13269, including enumerated water quality standards, explicit and liberal timelines for compliance, riparian setbacks and vegetated buffers, individual discharge monitoring and protections for drinking water. These provisions are also consistent with the proposed updates to the 2004 Order that staff described to the second AAP.

Regional Board staff set forth overwhelming evidence that the 2004 Order is inconsistent with water quality plans and standards, and is not in the public interest, in a staff report accompanying the Draft Order. (Regional Board Staff Preliminary Draft Report, Feb. 1, 2010, attached hereto as Exhibit G.) The 2004 Order was intended to “regulate discharges from

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

irrigated lands to ensure that such dischargers are not causing or contributing to exceedances of any Regional, State, or Federal numeric or narrative water quality standard.” (*Id.* at p. 8.) Six years after it was adopted, however, there is “no direct evidence that water quality is improving due to the 2004 Conditional Waiver.” (*Id.* at p. 7.) In fact, many water segments throughout the region are listed as impaired under Clean Water Act section 303(d), nearly all beneficial uses are impacted by agricultural pollution, and these impairments remain “well documented, severe, and widespread” despite the fact that a number of dischargers have enrolled under the 2004 Order. (*Id.* at p. 4.) For this reason, Regional Board staff concluded that “[i]mmediate and effective action is necessary to improve water quality protection and resolve the widespread and serious impacts on people and aquatic life.” (*Id.*)

Despite the evidence and staff’s recommendations, the Regional Board declined to adopt the Draft Order and instead renewed the 2004 Order for a second time on July 8, 2010. For the specific reasons discussed below, the Regional Board’s action was improper and inappropriate under state law.

A. THE ORDER IS NOT CONSISTENT WITH THE BASIN PLAN

In order to utilize a conditional waiver of WDRs under Water Code section 13269, the Regional Board must ensure that the exempted discharges are consistent with state and regional water quality plans, including the Central Coast Basin Plan. As the foregoing data demonstrate, existing agricultural discharges do not comply with the Basin Plan in important respects and thus render the 2004 Order inconsistent with state law. In fact, staff’s data and evaluation confirm that the 2004 Order is not, in most instances, even moving water quality toward meeting Basin

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

Plan or drinking water standards. Accordingly, renewal of the 2004 Order is unlawful under Water Code Section 13296 and at odds with the larger public interest.

For example, general water quality objectives in the Basin Plan provide that:

Toxicity

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board. . . .

Pesticides

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

For waters where existing concentrations are presently nondetectable or where beneficial uses would be impaired by concentrations in excess of nondetectable levels, total identifiable chlorinated hydrocarbon pesticides shall not be present at concentrations detectable within the accuracy of analytical methods prescribed in Standard Methods for the Examination of Water and Wastewater, latest edition, or other equivalent methods approved by the Executive Officer.

(Basin Plan at p. III-4.) Similarly, the Basin Plan specifies that suspended sediment, turbidity and temperature shall not be altered by any discharge in a manner that would adversely impact beneficial uses or cause a nuisance. (*Id.* at pp. III-3 – III-4.)

Data gathered by staff makes it clear that agriculture causes “widespread and serious impacts on people and aquatic life” on a regular and ongoing basis. Domestic and public water supplies have been significantly contaminated with nitrates and other agricultural pollutants, in many cases at levels that far exceed applicable drinking water standards. Similarly, toxic surface water discharges from irrigation ditches continue to regularly violate water quality standards, despite claims of significant enrollment under the 2004 Waiver. And trends in the use of riparian

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

vegetation buffers to protect against sedimentation, nutrient loading, and temperature increases are going in exactly the wrong direction. (Regional Board Staff Preliminary Draft Report, Feb. 1, 2010, *supra*, at p. 16.)

The severity of the problem is demonstrated by the existing Section 303(d) impaired waterbodies list for the Central Coast region and by the Regional Board's July 2009 recommendations for updating that list. On the existing (2006) list, water segments with agriculture as a source of impairment include:

Alamo Creek, Alisal Creek (Salinas), Blanco Drain, Bradley Canyon Creek, Carpinteria Creek, Carpinteria Marsh (El Estero Marsh), Cholame Creek, Chorro Creek, Elkhorn Slough, Espinoza Slough, Los Osos Creek, Love Creek, Main Street Canal, Moro Cojo Slough, Moss Landing Harbor, Newell-Creek (Upper), Nipomo Creek, Old Salinas River Estuary, Orcutt Creek, Oso Flaco Lake, Pacific Ocean at East Beach (mouth of Mission Creek, Santa Barbara County), Pacific Ocean at Jalama Beach (Santa Barbara County), Salinas Reclamation Canal, Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920), Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River), Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir), Salinas River Lagoon (North), San Lorenzo Creek, Santa Maria River, Santa Ynez River (below city of Lompoc to Ocean), Santa Ynez River (Cachuma Lake to below city of Lompoc), Tembladero Slough, Tequisquita Slough, Valencia Creek, Watsonville Slough, and Zayante Creek.

(2006 CWA Section 303(d) List, Central Coast Region, *available at* http://www.swrcb.ca.gov/rwqcb3/water_issues/programs/tmdl/index.shtml.)

In its most recent biennial review, staff assessed data from 347 of the region's 818 waterbodies and recommended 515 new listings, bringing total recommended listings to 707. (Regional Board Staff Report for July 10, 2009, Item 12, at p. 1., *available at* www.swrcb.ca.gov/rwqcb3/water_issues/programs/tmdl/303d_list.shtml.) A quick review of the recommended listings readily reveals that nutrient, sediment and pesticide loading continues to be a significant problem in areas dominated by agricultural uses, and agriculture-related

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

discharges are the source of many new listings. (*Id.* at Appendix A.) In contrast, staff proposed a mere 49 waterbodies for delisting, of which only 6 are meeting water quality standards (the remainder of the proposed delistings appear to be driven by lack of data). In short, water quality in the Central Coast region is continuing to degrade, especially in those waterbodies affected primarily by agricultural discharges. The 2004 Order is not adequate to protect water quality from toxic discharges and harmful pesticide pollutants, as required by the Basin Plan. The 2004 Order therefore is inconsistent with the Basin Plan and violates Water Code Section 13269(a)(1).

B. THE ORDER IS NOT IN THE PUBLIC INTEREST

Water Code Section 13269(a)(1) requires that discharge waivers be in the public interest. The 2004 Order is not in the public interest, because it “lacks clarity and focus,” does not provide for adequate “compliance and verification monitoring,” and allows “agricultural discharges [to] continue to severely impact water quality in most receiving waters.” (Regional Board Staff Preliminary Draft Report, Feb. 1, 2010, *supra*, at p. 19.) “[C]ontinuing to operate in a mode that causes constant or increasingly severe receiving water problems is not a sustainable model” and will result in “increasingly impaired habitat[] and reactive fixes.” (*Id.* at p. 8.) Staff has, therefore, strongly recommended that the Regional Board “take action immediately to better regulate agricultural discharges on the Central Coast.” (*Id.*)

1. THE 2004 ORDER DOES NOT ADEQUATELY PROTECT WATER QUALITY

The major water quality issues on the Central Coast are “toxicity, nitrates, pesticides and sediment in agricultural runoff and/or leaching to groundwater.” (*Id.*, at p. 4.) “Agricultural

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

discharges (primarily due to contaminated irrigation runoff and percolation to groundwater) are a major cause of water quality impairment” for drinking water as well as aquatic organisms. (*Id.*)

In some cases, agricultural discharges are the sole or primary source of pollution in impaired water bodies. Even in areas where agriculture is not the only source of pollution, it is a primary contributor. (*Id.* at p. 17.) And for the most part, the situation has not improved under the existing 2004 Waiver. Of particular relevance are the following facts:

- Most of the same areas that showed serious contamination from agricultural pollutants five years ago are still seriously contaminated;
- The 2008 Clean Water Act Section 303(d) List of Impaired Waterbodies for the Central Coast Region (“Impaired Waters List”) identified surface water impairments for approximately 167 water quality limited segments related to a variety of pollutants (for example, salts, nutrients, pesticides/toxicity, and sediment/turbidity). Sixty percent of the surface water listings identified agriculture as one of the potential sources of water quality impairment;
- Agricultural discharges most severely impact surface waterbodies in the lower Salinas and Santa Maria watersheds, both areas of intensive agricultural activity. Evaluated through a multi-metric of water quality, 82 percent of the most degraded sites in the Central Coast Region are in these agricultural areas;
- Nitrate concentrations in areas that are most heavily impacted are not improving significantly or in any widespread manner and in a number of sites in the lower Salinas and Santa Maria watersheds appear to be getting worse in the last few years (from Central Coast Ambient Monitoring Program (CCAMP) and Cooperative Monitoring Program (CMP) data); and
- Agricultural use of pyrethroid pesticides in the Central Coast Region and associated toxicity are among the highest in the state. In a statewide study of four agricultural areas conducted by the Department of Pesticide Regulation, the Salinas study area had the highest percent of surface water sites with pyrethroid pesticides detected (85 percent), the highest percent of sites that exceeded levels expected to be toxic (42 percent), and the highest rate (by threefold) of active ingredients applied (113 lbs/acre).

(*Id.* at p. 12.)

2. THE 2004 ORDER DOES NOT ADEQUATELY PROTECT HUMAN HEALTH

In the Central Coast Region “thousands of people are drinking water contaminated with unsafe levels of nitrate or are drinking replacement water to avoid drinking contaminated water.”

(*Id.* at p. 4.) Beyond health considerations, “[t]he cost to society for treating [this] polluted drinking water is estimated to be in the hundreds of millions of dollars.” (*Id.*) The facts related to drinking water contamination are startling:

- Thirty percent of all sites from CCAMP and CMP have average nitrate concentrations that exceed the drinking water standard, and approximately 57 percent exceed the level necessary to protect aquatic life. Several of these waters have average nitrate concentrations that exceed the drinking water standard by five-fold or more. Some of the most seriously polluted waterbodies include the Tembladero Slough system (including Old Salinas River, Alisal Creek, Alisal Slough, Espinosa Slough, Gabilan Creek and Natividad Creek), the Pajaro River (including Llagas Creek, San Juan Creek, and Furlong Creek), the lower Salinas River (including Quail Creek, Chualar Creek and Blanco Drain), the lower Santa Maria River (including Orcutt-Soloman Creek, Green Valley Creek, and Bradley Channel), and the Oso Flaco watershed (including Oso Flaco Lake, Oso Flaco Creek, and Little Oso Flaco Creek);
- Groundwater contamination from nitrate severely impacts public drinking water supplies in the Central Coast Region. A Department of Water Resources survey of groundwater quality data collected between 1994 and 2000 from 711 public supply wells in the Central Coast Region found that 17 percent of the wells (121 wells) detected a constituent at concentrations above one or more drinking water standards or primary maximum contaminant levels (MCLs). Nitrate caused the most frequent MCL exceedances (45 mg/L nitrate as nitrate or 10 mg/L nitrate as nitrogen), with approximately 9 percent of the wells (64 wells) exceeding the MCL for nitrate. According to data maintained in the GAMAGeotracker database, recent impacts to public supply wells are greatest in portions of the Salinas Valley (up to 20 percent of wells impacted) and Santa Maria groundwater (approximately 17 percent) basins. In the Gilroy-Hollister Groundwater Basin, 11 percent are impacted, and the CDPH identified over half of the drinking water supply wells as vulnerable to discharges from agricultural-related activities. Due to these elevated concentrations of nitrate in groundwater, many public water supply systems are required to provide wellhead treatment, at significant cost, to remove nitrate before delivery to the drinking water consumer;

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

- Groundwater contamination from nitrate severely impacts shallow domestic drinking water supplies in the Central Coast Region. Domestic wells (wells supplying one to several households) are typically screened in shallower zones than public supply wells, and typically have higher nitrate concentrations as a result. Water quality monitoring of domestic wells is not generally required and water quality information is not readily available, however based on the limited data available, the number of domestic wells that exceed the nitrate drinking water standard is likely in the range of hundreds to thousands in the Central Coast Region;
- In Monterey County, 25 percent of 352 wells sampled (88 wells) had concentrations above the nitrate drinking water standard in the northern Salinas Valley. In portions of the Salinas Valley, up to approximately 50 percent of the wells surveyed had concentrations above the nitrate drinking water standard, with average concentrations nearly double the drinking water standard and the highest concentration of nitrate approximately nine times the drinking water standard. Nitrate exceedences in the Gilroy-Hollister and Pajaro groundwater basins are similar, as reported by local agencies/districts for those basins; and
- In many cases, whole communities relying on groundwater for drinking water purposes are affected. Local agencies have reported the shut down of domestic drinking water wells due to high nitrate concentrations. In addition, local agencies and consumers have reported impacts to human health resulting from nitrate contaminated groundwater likely due to agricultural land uses, and spent significant financial resources to ensure proper drinking water treatment and reliable sources of quality drinking water for the long-term. In the Central Coast Region, the Monterey County community of San Jerardo, the San Martin area of Santa Clara County, and the City of Morro Bay are among the local communities affected by nitrate.

(*Id.* at p. 15.)

3. THE 2004 ORDER DOES NOT ADEQUATELY PROTECT AQUATIC ORGANISMS OR HABITAT

In agricultural watersheds on the Central Coast, most of the surface waterbodies are no longer “suitable for safe recreational fishing or to support aquatic life.” (*Id.* at p. 15.) Additionally, “large stretches of rivers in the entire region’s major watersheds have been severely impaired or completely destroyed by severe toxicity from pesticides.” (*Id.* at p. 4.)

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

These “poor biological and physical conditions” indicate the extent of degradation of the aquatic habitat. (*Id.* at p. 15.) More particularly:

- Discharges from some agricultural drains have shown toxicity every time the drains are sampled. Researchers collaborating with CCAMP have shown that these toxic discharges can cause toxic effects in river systems that damage benthic invertebrate communities;
- Agricultural discharges contribute to sustained turbidity with many sites heavily influenced by agricultural discharges exceeding 100 NTUs as a median value. Most CCAMP sites have a median turbidity level of under 5 NTUs. Resulting turbidity greatly exceeds levels that impact the ability of salmonids to feed. Many of these sites are located in the lower Santa Maria and Salinas-Tembladero watersheds;
- Agricultural discharges result in water temperatures that exceed levels that are desirable for salmonids at some sites in areas dominated by agricultural activity. Several of these sites are in major river corridors that provide rearing and/or migration habitat for salmonids. These include the Salinas, Santa Maria, and Santa Ynez Rivers;
- Bioassessment data shows that creeks in areas of intensive agricultural activity have impaired benthic communities. Aquatic habitat is often poorly shaded, high in temperature, and has in-stream substrate heavily covered with sediment;
- Several Marine Protected Areas (MPAs) along the Central Coast are at risk of pollution impacts from sediment and water discharges leaving river mouths. Three of the MPAs, Elkhorn Slough, Moro Cojo Slough and Morro Bay, are estuaries that receive runoff into relatively enclosed systems;
- For Moro Cojo Slough and Elkhorn Slough, nitrates, pesticides and toxicity are documented problems. These two watersheds have more intense irrigated agricultural activity than does the Morro Bay watershed;
- Agricultural activities result in the alteration of riparian and wetland areas, and continue to degrade the waters of the State and associated beneficial uses. Owners and operators of agricultural operations historically removed riparian and wetland areas to plant cultivated crops and in many areas continue to do so;
- As a result of aquatic habitat degradation, watershed functions that serve to maintain high water quality, aquatic habitat and wildlife - filtering pollutants, recharging aquifers, providing flood storage capacity, have been disrupted;
- Data collected from CCAMP and CMP indicate that population characteristics of aquatic insects (benthic macroinvertebrates) important to ecological systems reflect poor water

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

quality, degradation or lack of aquatic habitat, and poor overall watershed health at sites in areas with heavy agricultural land use. Aquatic habitat is often poorly shaded, high in temperature, and stream bottoms are heavily covered with sediment;

- The lower Salinas watershed and lower Santa Maria watersheds score low for common measures of benthic macroinvertebrate community health and aquatic habitat health;
- Unstable, bare dirt and tilled soils, highly vulnerable to erosion and stormwater runoff, are common directly adjacent to surface waterbodies in agricultural areas. Erosion and stormwater runoff from agricultural lands contributes sediment and sustained turbidity at levels that impact the ability of salmonids to feed. Many of these sites are located in the lower Santa Maria and Salinas-Tembladero watersheds;
- Degradation of aquatic habitat also results in water temperatures that exceed levels that are desirable for salmonids at some sites in areas dominated by agricultural activity. Several of these sites are in major river corridors that provide rearing and/or migration habitat for salmonids. These include the Salinas, Santa Maria, and Santa Ynez Rivers;
- Real and/or perceived incompatible demands between food safety and environmental protection and subsequent actions taken by Dischargers to address food safety concerns associated with environmental features have resulted in the removal of aquatic habitat and related management practices; and
- According to a Spring 2007 survey by the Resource Conservation District of Monterey County (RCDMC), 19 percent of 181 respondents said that their buyers or auditors had suggested they remove non-crop vegetation from their ranches. In response to pressures by auditors and/or buyers, approximately 15 percent of all growers surveyed indicated that they had removed or discontinued use of previously adopted management practices used for water quality protection. Grassed waterways, filter or buffer strips, and trees or shrubs were among the management practices removed.

(*Id.* at pp. 12, 16.)

Given the human health, ecological and economic tolls that agricultural discharges are exacting along the Central Coast under the 2004 Order, there is no reasonable argument that renewal of the existing waiver is consistent with Basin Plan objectives or policies, or is in any way “in the public interest” as required by Water Code Section 13269(a)(1).

V. MANNER IN WHICH PETITIONERS ARE AGGRIEVED

Petitioner Monterey Coastkeeper works to tackle water pollution problems through policy advocacy and legal tools to ensure that the interests of development, industry and urban activity are kept in line with the environmental needs and wishes of the Monterey Bay and Salinas Valley community it serves. MCK has thousands of members nationally, hundreds of whom live in the Monterey Bay watershed and depend upon clean local streams and shorelines in order to further their recreational, scientific, economic and social interests. Monterey Bay and the Salinas River are home to two national wildlife refuges and a national marine sanctuary. The Bay, the Salinas River National Refuge and nearby Elkhorn Slough are world-reknowned for their wildlife viewing and recreational opportunities. Since its inception, MCK has been active in championing for effective government regulations, good public policy and an active community role in protecting freshwater and marine waters alike. MCK's members are particularly concerned with pollution related to agricultural operations in the Monterey Bay watershed. When not properly managed, agricultural runoff poses significant threats to water quality. Nutrients, pesticides, sediments and other pollutants are among the threats to both freshwater and marine ecosystems. MCK participated actively as a stakeholder in the AAP that informed the current process to update the conditional waiver.

MCK and its members are aggrieved by the Regional Board's decision to renew the inadequate 2004 Order. MCK is concerned that current monitoring and control of agricultural runoff is minimal and inadequate. MCK advocates for more effective monitoring and control requirements to ensure that polluters are held accountable for their activities throughout the agricultural communities. MCK's members live and work in the region and have a beneficial

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

interest in assuring that agriculture is regulated by meaningful and effective requirements to prevent and minimize pollution discharges to the Salinas River and downstream waters. The Salinas River already is impaired by high levels of nutrients and other agriculturally-related pollutants. Any additional or unmonitored pollution releases to that River are detrimental to MCK and its members.

Petitioner Santa Barbara Channelkeeper is a grassroots non-profit organization that works to protect and enhance the water quality of the waters of southern Santa Barbara County for the benefit of its 900 members, as well as natural ecosystems and human communities. SBCK is dedicated to the preservation, protection and defense of the environment, wildlife, and the natural resources of the waters of southern Santa Barbara County and other area receiving waters. To further these goals, SBCK works to ensure the implementation and enforcement of the Porter-Cologne Water Quality Control Act, the Central Coast Basin Plan and other relevant laws through a combination of policy advocacy, water quality monitoring, and community education and engagement. SBCK participated actively as a stakeholder in the AAPs that informed both the 2004 Order and the current process to update the conditional waiver.

Since 2002, SBCK has been monitoring water quality throughout the Goleta Slough watershed and in other nearby streams in the Central Coast Region. Immediately downstream of undeveloped National Forest lands, agricultural facilities dominate the landscape surrounding streams in the Goleta area. Many of SBCK's monitoring sites are directly downstream of these agricultural influences, and at these sites, it has been determined that stream water quality is regularly polluted with concentrations of nutrients, bacteria and suspended sediments that exceed

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

Basin Plan Water Quality Objectives. These results are verified by the Regional Board's CCAMP data.

Members of SBCK use, recreate on and enjoy the aesthetic values of the beaches, rivers and creeks ("Receiving Waters") of southern Santa Barbara County, to which numerous irrigated agricultural operations discharge pollution. Members of SBCK use and enjoy the Receiving Waters for recreational, scientific, aesthetic, educational, conservation and commercial purposes, including but not limited to, fishing, boating, kayaking, surfing, swimming, windsurfing, fish and wildlife observation, photography, hiking and aesthetic enjoyment. The discharge of pollutants, including nutrients, pesticides, and sediment from irrigated agricultural operations to Receiving Waters impairs those uses. Thus, the interests of SBCK's members have been, are being, and will continue to be adversely affected by discharges from irrigated agricultural operations. The continuing and additional impairments to water quality and beneficial uses that are allowed by the outdated and inadequate 2004 Order directly harm SBCK members' use and enjoyment of the water.

Petitioner San Luis Obispo Coastkeeper, a program of Environment in the Public Interest, has consistently participated in water pollution, environmental impact and endangered species permit process via comments on particular permits, or when necessary bringing enforcement actions in northern Santa Barbara County and throughout San Luis Obispo County.

As such SLOCK has a direct interest in the Regional Board's Conditional Waiver of Waste Discharge Requirements for Discharges for Irrigated Lands, because the 800 members of the organization use local streams for recreational, scientific, economic and aesthetic purposes.

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

Contrary to the requirements set forth in Porter-Cologne and the Basin Plan, the 2004 Order allows agricultural discharges that result in water temperatures exceeding levels that are desirable for salmonids in the Salinas, Santa Maria and Santa Ynez rivers; nitrate concentrations that exceed the drinking water standard especially at a number of sites in the Santa Maria River watershed; and MPAs along the San Luis Obispo Coast and Morro Bay National Estuary are at risk of pollution impacts from sediment and water discharges originating on agricultural lands.

The continuing and additional impairments allowed by the 2004 Order directly harm SLOCK members' use and enjoyment of the water.

VI. REQUESTED STATE BOARD ACTION

Petitioners urge the State Board to: (1) pursuant to its authority under section 2052(a)(2)(B) of Title 23 of the California Code of Regulations, set aside as unlawful the Regional Board's July 8, 2010, decision renewing the 2004 Order; and (2) pursuant to its authority under California Water Code section 13320, adopt the February 2010 Draft Order as modified by recommendations contained in Petitioners' April 1, 2010, letter to the Regional Board. (Letter from EDC, MCK and SBCK to Regional Board, Apr. 1, 2010, attached hereto as Exhibit H.)

VII. STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT OF LEGAL ISSUES

Points and authorities in support of legal issues raised in the Petition are stated in Section IV above.

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

VIII. THE PETITION HAS BEEN SENT TO THE REGIONAL BOARD

Copies of this Petition have been sent to the following addresses:

Roger Briggs, Executive Officer
California Regional Water Quality Control Board, Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401
Email: rbriggs@waterboards.ca.gov

Frances McChesney, Senior Staff Counsel
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, California 95814
Email: fmcchesney@waterboards.ca.gov

**IX. SUBSTANTIVE ISSUES AND OBJECTIONS RAISED IN THE PETITION WERE
RAISED BEFORE THE REGIONAL BOARD**

Petitioners certify that the issues set forth above were presented in writing or orally to the
Regional Board in advance of its July 8, 2010, decision on this matter.

Respectfully submitted,

Dated: August 6, 2010

By: /s/ Deborah A. Sivas
Deborah A. Sivas
Alicia Thesing
Robb W. Kapla
ENVIRONMENTAL LAW CLINIC

Dated: August 6, 2010

By: /s/ Nathan G. Alley
Nathan G. Alley
Linda Krop
ENVIRONMENTAL DEFENSE CENTER

**Petition of Monterey Coastkeeper,
Santa Barbara Channelkeeper,
San Luis Obispo Coastkeeper**

Attorneys for Petitioners
MONTEREY COASTKEEPER, SANTA
BARBARA CHANNELKEEPER, SAN LUIS
OBISPO COASTKEEPER

Attachments: Exhibit A, Regional Board Order No. R3-2010-0040.

Exhibit B, Regional Board Order No. R3-2004-0117

Exhibit C, Regional Board Staff Report for July 8, 2004, Item No. 3.

Exhibit D, Letter from Regional Board Staff to AAP, Dec. 12, 2008.

Exhibit E, Letter from EDC, MCK and SBCK to Regional Board, Dec. 2, 2009.

Exhibit F, Feb. 1, 2010 Draft Order.

Exhibit G, Regional Board Staff Preliminary Draft Report, Feb. 1, 2010.

Exhibit H, Letter from EDC, MCK and SBCK to Regional Board, Apr. 1, 2010.

EXHIBIT A

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 AEROVISTA PLACE, SUITE 101
SAN LUIS OBISPO, CALIFORNIA 93401**

Order No. R3-2010-0040

**Conditional Waiver of Waste Discharge Requirements
for
Discharges From Irrigated Lands**

The Central Coast Regional Water Quality Control Board finds:

1. The intent of this Conditional Waiver is to regulate discharges from irrigated lands to ensure that such discharges are not causing or contributing to exceedances of any Regional, State, or Federal numeric or narrative water quality standard. Irrigated lands are lands where water is applied for producing commercial crops and, for the purpose of this program, include, but are not limited to, land planted to row, vineyard, field and tree crops as well as commercial nurseries, nursery stock production and greenhouse operations with soil floors that are not currently operating under Waste Discharge Requirements (WDRs). Fully contained greenhouse operations (those that have no groundwater discharge due to impervious floors) are not covered under this Conditional Waiver and must either eliminate all surface water discharges of pollutants or apply for Waste Discharge Requirements. Lands that are planted to commercial crops that are not yet marketable, such as vineyards and tree crops, must also obtain coverage under this Conditional Waiver.
2. Discharges include surface discharges (also known as irrigation return flows or tailwater), subsurface drainage generated by installing drainage systems to lower the water table below irrigated lands (also known as tile drains), discharges to groundwater through percolation, and storm water runoff flowing from irrigated lands. These discharges can contain wastes that could affect the quality of waters of the state.
3. Discharger means the owner and/or operator of irrigated cropland on or from which there are discharges of waste that could affect the quality of any surface water or groundwater.
4. The Central Coast Region has approximately 600,000 acres of cropland under irrigation and more than 2,500 operations that are or may be discharging waste that could affect the quality of waters of the state.
5. Waters of the state is defined in Section 13050 of the California Water Code to be any surface or groundwater within the boundaries of the state.
6. Whether an individual discharge of waste from irrigated lands may affect the quality of waters of the state depends on the quantity of the discharge, quantity of the waste, the quality of the waste, the extent of treatment, soil characteristics, distance to surface water, depth to groundwater, crop type, management practices and other site-specific factors.

7. Waste discharges from some agricultural operations have and will continue to threaten the quality of the waters of the state, as shown by the number of water bodies on the Clean Water Act Section 303(d) list of impaired water bodies that identify agriculture as a potential source, particularly in the Central Coast Region.
8. Data collected through the Central Coast Ambient Monitoring Program and other monitoring identify water quality problems in areas of irrigated agriculture throughout the Region, including in groundwater.
9. California Water Code Section 13269 allows Regional Boards to waive submission of Reports of Waste Discharge (ROWDs) and/or issuance of Waste Discharge Requirements (WDRs) if it is in the public interest. On April 15, 1983, the Regional Board approved a policy allowing waivers of WDRs for 26 categories of discharges, including irrigation return flows and non-NPDES storm water runoff.
10. On October 10, 1999, Senate Bill 390 amended California Water Code Section 13269. The amendments extended all waivers in effect on January 1, 2000, for three years to January 1, 2003, unless terminated earlier, and required all existing waivers to expire on January 1, 2003, unless renewed.
11. As amended, CWC Section 13269 authorizes the Regional Board to waive WDRs for a specific discharge or specific types of discharges if the following conditions are met: 1) the waiver is in the public interest, 2) the waiver is conditional, 3) waiver conditions include performance of individual, group, or watershed-based monitoring, except for discharges that the Regional Board determines do not pose a significant threat to water quality, 4) compliance with waiver conditions is required, and 5) a public hearing has been held. The term of a waiver cannot exceed five years, but the Regional Board can renew a waiver after holding a public hearing. The Regional Board may terminate a waiver at any time.
12. The Regional Board, in compliance with amended CWC Section 13269, reviewed the previously issued categorical waivers for irrigation return flows and non-NPDES storm water runoff and determined that additional conditions are required to protect water quality.
13. Relevant factors in determining whether a waiver is in the public interest include the following: whether the discharge is already regulated by a local governmental entity which must continue to play a major role in regulating that type of discharge; whether the Discharger is observing reasonable practices to minimize the deleterious effects of the discharge; whether a feasible treatment method exists to control the pollutants in the discharge; and whether conditionally waiving ROWDs and/or WDRs will adequately protect beneficial uses while allowing the Regional Board to utilize more of its resources to conduct field oversight, public outreach and, where necessary, enforcement. Although local government entities do not regulate water quality impacts of agricultural operations, these operations are subject to pesticide regulation and reporting. In addition, various public and private entities provide education and field assistance to growers implementing best management practices. These entities include various Resource Conservation Districts, the Monterey Bay National Marine Sanctuary, the University of California Cooperative Extension, and the programs cited in Finding 17. The Regional Board has made supplemental environmental program funds available to farm-related activities such as a watershed coordinator and monitoring, and anticipates directing further grants toward these activities, as well as to on-farm management practice implementation. Compliance with the Conditional Waiver will include reasonable management practices to minimize water quality

impacts. Management practices that reduce the amount of waste produced or contain runoff are more feasible and more effective than treatment methods and will be strongly encouraged.

14. The adoption of the Conditional Waiver is also in the public interest because (1) it includes conditions that are intended to reduce and prevent pollution and nuisance and protect the beneficial uses of the waters of the state, (2) it contains more specific and more stringent conditions for protection of water quality compared to existing regulatory programs, (3) given the number of persons who discharge waste from irrigated lands and the magnitude of acreage involved, it provides for an efficient and effective use of limited Regional Board resources, (4) it provides flexibility for the Dischargers who seek coverage under the Conditional Waiver by providing them with the option of complying with monitoring requirements through participation in cooperative monitoring programs or individually, and (5) it builds on, rather than replaces, existing efforts within the Region.
15. The Conditional Waiver provides an alternative regulatory option to adoption of WDRs for all Dischargers. Dischargers may seek coverage under this program through a tiered waiver structure. Some operations may be immediately considered for WDRs because of a past history of violations or other problems of non-compliance; however, the vast majority of operations will be allowed time to meet requirements before being considered for WDRs. The conditions of the waiver require Dischargers to comply with applicable water quality control plans and water quality objectives.
16. It is not expected that Dischargers will achieve full compliance with all of the conditions immediately. In some areas, rising groundwater with nitrate levels exceeding the drinking water standard may influence surface water concentrations substantially, making water quality improvements difficult to achieve in the short term. In others, time will be required to find the most effective combination of practices to improve water quality. The cooperative water quality monitoring program is designed to focus attention on waterbodies where objectives are not being met and allow Dischargers time to adjust practices. Although time will be allowed, increased reporting and monitoring may be required in order to ensure that water quality is improving. Even if the Regional Board were to issue WDRs to Dischargers rather than adopting this waiver, compliance schedules under California Water Code Section 13263(c) would be appropriate in most cases.
17. The Central Coast Region has benefited from the proactive approach to protecting water quality taken by several segments of the agricultural industry. Notable examples include the Agricultural Water Quality Program of the Coalition of Central Coast County Farm Bureaus (Farm Bureau Coalition) and efforts to promote sustainable wine growing practices by the Central Coast Vineyard Team and the Central Coast Winegrowers Association. Efforts are also underway to promote sustainable practices by Spanish-speaking farmers through the Rural Development Center and the Agricultural Land-Based Training Association (ALBA) in Monterey County. A consideration in developing the new regulatory program was the impact such a program would have on existing water quality protection efforts by the agricultural industry. Continuing and building on such efforts is in the public interest. Staff has worked with the agricultural and environmental communities in the Region to find areas of agreement on the broad outline of an irrigated agriculture water quality program.

How does the Conditional Waiver give “credit” to growers who have been proactive in protecting water quality?

18. Under the Monterey Bay Sanctuary’s Plan for Agriculture, the Farm Bureau Coalition is organizing growers into watershed working groups who attend Farm Water Quality Planning short courses as a group and develop farm plans. The Waiver’s education and plan requirements are modeled on this, so growers who are participating in the Sanctuary effort will likely be in Tier 1 (see Part IIC, “Waiver Tiers”) and have fewer reporting requirements and lower costs. Growers who have completed other qualifying water quality education classes and developed plans that meet the waiver requirements will also qualify for Tier 1. Vineyards operations that have completed Positive Point System evaluations will be able to use them as part of their farm plans. Regional Board staff also recommends that growers who meet the education and planning requirements and who have already implemented substantial management practices to protect water quality have reduced monitoring costs under the cooperative monitoring program, and be considered as a “low-threat” discharge (see below).

What is the management practice checklist?

19. The management practice checklist/self-assessment is a short questionnaire that allows the Discharger to identify management practices that are being implemented for water quality protection. The Regional Board will provide a template prior to the enrollment deadline. The template will include practices for irrigation management, nutrient management, pesticide management and erosion control. Dischargers will also be able to add practices if they are known or likely to have a water quality benefit. The template will be available on-line. Tier 1 dischargers will submit an updated checklist once during the waiver cycle (five years); Tier 2 dischargers will submit a checklist annually as part of their annual report. In areas where water quality monitoring identifies problems, checklists will be used to assess whether practices need to be adjusted or whether increased implementation is needed.

What is a “low-threat” discharge?

20. A low-threat discharge is a discharge that has very low potential to impact water quality because of management practices in place. For the purposes of this Conditional Waiver a low-threat discharge category could be defined in the cost allocation structure of the cooperative monitoring program and qualify for reduced monitoring costs.

If I have no discharge, do I have to apply for a Waiver?

21. If an operation does not discharge waste that could affect water quality, then there is no need to obtain coverage under the Conditional Waiver. “Waste” includes (among other things) any residual pesticide, herbicide, or fertilizer that is not taken up or beneficially used for its intended purpose. Any discharge of waste that could percolate to groundwater or run off in tail water or stormwater is a discharge for purposes of this waiver. Waste discharges also include sediment that runs off a field (erosion) due to land disturbance activities. It is very difficult to be certain that an operation has no discharge, particularly to groundwater or during storm events; however, Dischargers that qualify for Tier 1 have fewer reporting requirements and facilities that have implemented management practices may be considered for a low-threat discharge category in the cooperative monitoring program and could have reduced monitoring costs.

What if I lease land?

22. Under the terms of the Conditional Waiver, both owners and operators of irrigated land have responsibility for compliance with the conditions of the waiver. A farm map must be submitted along with the Notice of Intent (see Part II below). Farm water quality management plans must specify management practices for the operation identified in the map. Many management practices will be operational in nature and under the direct control of the operator, while structural practices which remain in place through changes in leaseholders will more likely be the responsibility of the landowner. In the event that the Regional Board undertakes enforcement action, it is likely that both the owner and the operator will be held accountable. Owners and operators may consider delineating these responsibilities in lease agreements; however, both the owner and operator will retain full legal responsibility for complying with all provisions of the applicable waiver.

How do I apply?

23. Dischargers seeking authorization to discharge under the Conditional Waiver shall submit a complete *Notice of Intent (NOI) to Comply with the Terms of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Land*. The Notice of Intent form will be available from the Regional Water Quality Control Board upon request and on the Regional Board's website.
24. Information that must be submitted as part of the NOI includes the location of the operation, identification of responsible parties (owners/operators), a map of the operation (should be the same as is submitted to the Agricultural Commission for pesticide use applications or equivalent), a management practice checklist/self-assessment on a template provided by the Regional Board, certification of completion of Regional Board-approved water quality education, a signed statement of farm water quality plan completion, if applicable, and which monitoring option is elected. Certificates of education and statement of plan completion will be used to evaluate which category of waiver is appropriate.

When do I apply?

25. The deadline for submitting a Notice of Intent is **January 1, 2005**. All task and milestone due dates are listed in Part IV (Provisions) of this Order. All Dischargers must apply for coverage under the conditional waiver by **January 1, 2005**.

Is a fee required?

26. Not at this time. Recently passed Senate Bill 923 authorizes the payment of fees for conditional waivers. A fee schedule may be set by the State Board based on a number of factors, including acreage, and monitoring and compliance costs. The Regional Board cannot charge fees until after the State Board adopts a fee schedule for waivers.

Is monitoring required?

27. California Water Code Section 13269 requires conditional waivers to include a monitoring program that verifies the adequacy and effectiveness of the waiver's conditions. Monitoring programs can be individual, group (cooperative), or watershed-based. As long as a Discharger

complies with all of the provisions and requirements of the waiver, if group monitoring adequately verifies that the waiver conditions adequately protect water quality, a cooperative monitoring approach satisfies Section 13269.

28. Monitoring requirements and options are described in Monitoring and Reporting Program (MRP) R3-2004-0117. All Dischargers will be required to elect a monitoring option. Dischargers may elect to perform individual monitoring or participate in cooperative monitoring. Cooperative monitoring in general offers a much less costly alternative to individual monitoring. A Discharger may change the monitoring option election at any time by submitting a revised NOI. The revised NOI must include a proposed monitoring and reporting plan (to elect individual monitoring) or a demonstration that the Discharger is participating in a cooperative monitoring program (for cooperative monitoring).

How will the cooperative monitoring program work?

29. The cooperative monitoring program, which was developed by Regional Board monitoring program staff, with input from the Agricultural Advisory Panel and researchers within the Region, will focus on currently applied agricultural constituents. The program calls for monitoring at sites located on the main stems and tributaries of rivers in the agricultural areas of the region. Monthly sampling will be conducted to analyze nutrients (nitrate, ammonia, orthophosphate) and some general parameters such as temperature, dissolved oxygen, total dissolved solids, pH, turbidity, and flow. Monthly monitoring of these constituents in a set of fixed locations will improve the Regional Board's ability to determine whether water quality is improving over time. It takes much longer to detect change, statistically speaking, with less frequent monitoring, and change detection is important for determining whether the waiver is effective. Monitoring of these conventional pollutants is less expensive than other program components, such as toxicity, and thus is a comparatively inexpensive way to increase the ability to detect improvements in water quality resulting from management practices. Data from the Regional Board's Central Coast Ambient Monitoring Program (CCAMP) shows that exceedances of these general water quality parameters are often associated with toxicity in waters affected by agricultural runoff. The cooperative monitoring program will make provision for follow-up monitoring with a certain fixed proportion of its budget, as another means of maintaining costs at a reasonable level.
30. Monitoring for individual pesticides can be expensive and does not assess additive or synergistic effects or impacts to beneficial uses. The cooperative monitoring program proposes instead to look first at in-stream effects, by performing toxicity testing at the same set of sites four times per year, twice during the irrigation season and twice during the storm season. The program will also characterize in-stream health by examination of insects and other invertebrates that live in the streams. In combination with toxicity sampling, this approach will enable the Regional Board to assess the overall impact of the discharges to beneficial uses, such as aquatic life and habitat.
31. Cooperative monitoring will allow growers to pool resources to meet monitoring requirements at a lower cost than individual monitoring. The monitoring sites will be located primarily in agricultural areas with previously identified water quality problems, but will also incorporate other monitoring efforts to provide coverage throughout the agricultural areas of the region. Regional Board staff is directed to work with the agricultural industry to assist the industry to establish or identify an existing nonprofit entity. This entity will be responsible for establishing a dues schedule, collecting funds and conducting the monitoring program adopted by the Regional Board. The Central Coast Ambient Monitoring Program will provide additional monitoring as part of its five-year rotation scheme, and monitoring data from other agencies will be

incorporated wherever possible. The nonprofit entity will also have the ability to receive grant funds and other sources of revenue to reduce costs to growers. The Regional Board strongly encourages the industry to seek available grant funds to reduce monitoring costs for participating Dischargers, either through a cooperative monitoring entity or through other eligible entities.

What will cooperative monitoring cost?

32. The total annual cost of the cooperative monitoring program is estimated to be between \$900,000 and \$1.0 million. The contribution of each discharger participating in the cooperative monitoring program will be based on a cost schedule developed by the agricultural industry and the nonprofit entity, as described in paragraph 31. Regional Board staff will work with the cooperative monitoring program to develop a reasonable cost to individuals based on a number of factors, including type of discharge and threat to water quality. Settlement funds and grant funds may be used to supplement resources and reduce overall costs.
33. The Regional Board encourages the cooperative monitoring program to develop reduced monitoring charges for low-threat discharges.

What are some considerations in establishing a monitoring program?

34. The monitoring program must verify the adequacy and effectiveness of the waiver's conditions. In establishing a monitoring program, the Regional Board may consider the volume, duration, frequency, and constituents of the discharge, and the extent and type of existing monitoring activities. The monitoring program can rely on other agencies' or organizations' water quality monitoring programs in lieu of establishing a separate monitoring program as long as those programs provide sufficient data of adequate quality; if other program data are of adequate quality but incomplete, the Board can still rely on the other data and limit the additional monitoring requirements to what is needed to fill data gaps.
35. There are a number of surface water quality monitoring programs in the Central Coast Region. However, few on-going programs assess impacts to beneficial uses from agricultural chemicals through chemical testing, toxicity testing or benthic invertebrate monitoring. The Regional Board's Central Coast Ambient Monitoring Program conducts relatively detailed monitoring on a five-year rotational cycle. Data from this program and others can be used to supplement the monitoring program, but will not provide sufficient data to verify the adequacy and effectiveness of the waiver, nor to detect improvements in water quality due to changes in management practices within the time frame of the waiver.

The Regional Board recognizes that a certain amount of time will be required to put a cooperative monitoring program in place, but an unreasonable delay in monitoring will violate CWC Section 13269, which requires monitoring to verify the adequacy of the waiver's conditions. Staff will assist the agricultural industry to identify a suitable entity to manage the cooperative monitoring program. The entity must demonstrate to the Executive Officer's satisfaction that it is technically able to carry out the monitoring and reporting program (either directly or by hiring a consultant or other acceptable organization to perform monitoring and reporting) and that it has or will have adequate financial resources to do so. Demonstration of financial capability should include development of a budget which may incorporate funding from outside sources, such as grants. A dues schedule should be developed in consideration of input from the agricultural industry. The entity, working with Regional Board staff, shall advise Dischargers on the availability of the cooperative monitoring program. Each Discharger covered by the waiver is ultimately responsible for compliance and must perform individual monitoring if the cooperative monitoring is not established. The entity will notify the Regional Board of any enrolled

dischargers who cease to comply with dues schedules or other enrollment requirements; such dischargers will be considered out of compliance with the conditions of the waiver unless they begin individual monitoring immediately. Staff will provide to the agricultural industry's "monitoring subcommittee," data as part of an inventory and review of existing data and monitoring efforts. The "monitoring subcommittee" may develop an alternative monitoring protocol for consideration by the Regional Board. The Board shall hold a public hearing and consider the agricultural industry's "monitoring subcommittee's" alternative monitoring protocol. Monitoring and Reporting Program R3-2004-0117 will be implemented as proposed, beginning in the lower Salinas/Elkhorn and Santa Maria areas, and shall be implemented by January 1, 2005. Full regionwide monitoring, in accordance with MRP R3-2004-0117 or an alternative monitoring protocol approved by the Regional Board at a public hearing, shall be implemented by January 1, 2006.

36. All requirements for technical and monitoring reports are pursuant to California Water Code section 13267. These reports are necessary to evaluate each Discharger's compliance with the terms and conditions of the Conditional Waiver, to verify the adequacy and effectiveness of the waiver's conditions and to evaluate whether additional regulatory programs or enforcement actions are warranted. Failure to submit reports in accordance with schedules established by this Order, Monitoring and Reporting Program R3-2004-0117, or an individual or cooperative monitoring plan, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

Why is agriculture being required to do more monitoring than other land uses?

37. California Water Code Section 13267 requires the cost of monitoring to be reasonable in light of the information to be obtained. Identified water quality problems in agricultural areas, in conjunction with the large number of Clean Water Act 303(d) listings that identify agriculture as a potential source justify greater monitoring than is necessary for other land uses, such as urban stormwater, which is not known to be causing as high a level of regional impact. However, when water quality monitoring indicates sources other than agriculture may be contributing to a problem, the other sources will be required to provide monitoring and other information to the Regional Board.

Is groundwater monitoring required?

38. No. Existing groundwater monitoring efforts around the region will be used in lieu of any agricultural groundwater monitoring requirements.

What if groundwater already violates standards?

39. Groundwater in many agricultural areas of the region shows nitrate levels exceeding drinking water standards. Growers will not be held liable for historical conditions. Since high nitrate groundwater in agricultural areas is often used for irrigation, farm plans need to include nutrient management practices to ensure that current discharges to groundwater do not further degrade groundwater. Plans also should account for specific nitrate concentrations in irrigation water in determining agronomic nitrogen application rates.

Am I expected to contain all stormwater on my property?

40. Although there is no requirement to contain all stormwater on site, all farm plans must identify practices to reduce discharges during storm events. Operations should choose the best combination of practices to reduce and/or detain runoff, reduce erosion and reduce the discharge of sediment, nutrients and pesticides during storms. Conservation practices that could pose a threat to public safety, for example, sediment detention basins that include earthen embankments, should conform to relevant local ordinances and engineering standards. Other management practices such as cover crops, filter strips, or furrow alignment, should aim to reduce runoff quantity and velocity, hold fine particles (silt and clay) in place, and increase infiltration to minimize impacts to stormwater quality. The goal of these combined practices should be to minimize stormwater runoff for the first half inch of rain during each storm, and to reduce runoff for the first one and one-half inches of rain during each storm. There is no requirement to contain or manage waste in stormwater runoff that enters the farm from off site, but the occurrence of such runoff does not change the goal of managing waste generated on site.

What happens if a Tier 2 discharger fails to meet requirements for Tier 1 within the three year time limit?

41. Dischargers who fail to meet Tier 1 requirements within three years will be issued Waste Discharge Requirements if they have made no progress toward meeting Tier 1 requirements. Progress includes completion of five hours of water quality training each year and progress toward completion of a farm water quality plan. Prior to issuance of Waste Discharge Requirements, the Discharger may ask the Regional Board to consider extenuating circumstances, such as lack of available training and financial hardship.

Regulatory Considerations

42. Basin Plan – The Regional Board adopted the Water Quality Control Plan, Central Coast Basin (Basin Plan) on September 8, 1994. The Basin Plan incorporates State Board plans and policies by reference and contains a strategy for protecting beneficial uses of surface and ground waters throughout the Region. This conditional waiver requires Dischargers to comply with all applicable provisions of the Basin Plan.
43. Beneficial Uses – Existing and potential beneficial uses of surface and groundwaters within the Central Coast Region include municipal and domestic supply; agricultural supply; industrial process and service supply; recreation; warm and cold freshwater habitat; wildlife habitat; migration; spawning; areas of special biological significance (now called State Water Quality Protection Areas or SWQPAs); rare, threatened or endangered species; freshwater replenishment; and groundwater recharge. Beneficial uses that apply to all waterbodies, unless otherwise identified in the Basin Plan, include municipal and domestic supply, recreation, and aquatic life (either warm or cold freshwater habitat, as applicable).
44. California Environmental Quality Act – For purposes of adoption of this Waiver Order, the Regional Board is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21100 et. seq.). The action to adopt a conditional waiver is intended to protect and improve water quality. The waiver order sets forth conditions that will require Dischargers to implement management practices to protect water quality and to monitor to ensure that such practices are effective and are improving water quality. The Regional Board has not regulated the discharges subject to this waiver Order to this extent in the past. Such

regulation will result in protection, maintenance and improvement of water quality. The Regional Board adopted a Negative Declaration in Resolution R3-2004-0118.

45. Anti-Degradation – This Order is consistent with the Provisions of State Water Resources Control Board Resolution No. 68-16, “Statement of Policy with Respect to Maintaining High Quality of Waters in California.” Regional boards, in regulating the discharge of waste, must maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in a regional board’s policies. This conditional waiver Order will result in improved water quality throughout the region. Dischargers must comply with all applicable provisions of the Basin Plan, including water quality objectives, and implement best management practices to prevent pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State. The conditions of this waiver will protect high quality waters and restore waters that have already experienced some degradation.
46. The goal of this Order and Conditional Waiver is to improve and protect water quality by providing a program to manage discharges from irrigated lands that cause or contribute to conditions of pollution or nuisance as defined in Section 13050 of the California Water Code or that cause or contribute to exceedances of any Regional or State Board numeric or narrative water quality standard by reducing discharges of waste.
47. Interested parties were notified of the intent to adopt a conditional waiver of waste discharge requirements for discharges from irrigated lands, including irrigation wastewater and/or stormwater, to surface waters and groundwater as described in this Waiver Order and were provided an opportunity for a public hearing and an opportunity to submit written comments.
48. In a public hearing, all comments pertaining to this Waiver Order were heard and considered.

IT IS HEREBY ORDERED that, pursuant to California Water Code sections 13263, 13267 and 13269, Dischargers of irrigation wastewater and/or stormwater from irrigated lands to waters of the state, who file for coverage under this Waiver Order in order to meet the provisions contained in California Water Code Division 7 and regulations and plans and policies adopted thereunder, and who request waiver of waste discharge requirements, shall comply with the following terms and conditions:

PART I. WAIVER

1. The discharge of any wastes not specifically regulated by the waiver described herein is prohibited unless the Discharger complies with CWC Section 13260(a) and the Regional Board either issues waste discharge requirements pursuant to CWC Section 13263 or an individual waiver pursuant to CWC Section 13269 or the time frames specified in CWC Section 13264(a) have elapsed.
2. The Regional Board waives the submittal of a ROWD and WDRs for discharges from irrigated land if the Discharger complies with the conditional waiver described in this Order and Monitoring and Reporting Program R3-2004-0117.
3. Dischargers shall take action to comply with the terms and conditions of the waiver adopted by this Order and improve and protect waters of the state.

4. This waiver shall not create a vested right and all such discharges shall be considered a privilege, as provided for in CWC Section 13263.
5. Pursuant to CWC Section 13269, this action waiving the issuance of waste discharge requirements for certain specific types of discharges: (a) is conditional, (b) may be terminated at any time, (c) does not permit an illegal activity, (d) does not preclude the need for permits which may be required by other local or governmental agencies, and (e) does not preclude the Regional Board from taking enforcement actions (including civil liability) pursuant to the CWC.

PART II. WAIVER PROGRAM

A. Definitions

1. Irrigated lands – lands where water is applied for the purpose of producing commercial crops. For the purpose of this Conditional Waiver, irrigated lands include, but are not limited to, land planted to row, vineyard, field and tree crops, commercial nurseries, nursery stock production, and greenhouse operations with soil floors.
2. Irrigation return flow – surface and subsurface water which leaves the field following application of irrigation water.
3. Tailwater – the runoff of irrigation water from the lower end of an irrigated field.
4. Stormwater runoff – the runoff of precipitation from the lower end of an irrigated field.
5. Subsurface drainage – water generated by installing drainage systems to lower the water table below irrigated lands. The drainage can be generated by subsurface drainage systems, deep open drainage ditches or drainage wells.
6. Discharge - a release of a waste to waters of the State, either directly to surface waters or through percolation to groundwater. Wastes from irrigated agriculture include earthen materials (soil, silt, sand, clay, rock), inorganic materials (metals, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.), and organic materials such as pesticides.
7. Discharger - the owner and/or operator of irrigated cropland on or from which there are discharges of waste that could affect the quality of any surface water or groundwater.
8. Requirement of applicable water quality control plans- a water quality objective, prohibition, Total Maximum Daily Load (TMDL) implementation plan, or other requirement contained in water quality control plans adopted by the Regional Board and approved according to applicable law.
9. Monitoring - refers to all types of monitoring undertaken in connection with determining water quality conditions and factors that may affect water quality conditions, including but not limited to, in-stream water quality monitoring undertaken in connection with agricultural activities, monitoring to identify short and long-term trends in water quality, inspections of

operations, management practice implementation and effectiveness monitoring, maintenance of on-site records and management practice reporting.

10. Farm Water Quality Management Plan (Farm Plan) - a document that contains, at a minimum, identification of practices that are currently being or will be implemented to address irrigation management, pesticide management, nutrient management and erosion control to protect water quality. Plans will contain a schedule for implementation of practices. Lists of water quality protection practices are available from several sources, including the University of California farm plan template available from the University of California and on-line at <http://anrcatalogue.ucdavis.edu/merchant.ihtml?pid=5604&step=4>.

11. All other terms shall have the same definitions as prescribed by California Water Code Division 7, unless specified otherwise.

B. Enrollment Process

All applicants must submit the following information as part of their Notice of Intent (NOI) to enroll:

- Completed application form, including location of the operation and identification of responsible parties (owners/operators)
- Copy of map of operation (map should be the same as the one submitted to the County Agricultural Commissioner for Pesticide Use Reporting, or equivalent)
- Completed management practice checklist/self assessment form
- Certificates of attendance at Regional Board-approved farm water quality education courses, if applicable
- Statement of farm water quality plan completion, if applicable
- Election for cooperative or individual monitoring

C. Waiver Tiers

Tier 1 Qualifications and Reporting Requirements

Tier 1 conditional waivers will be five years in length. To qualify for a Tier 1 conditional waiver, Dischargers must do the following:

- a. complete 15 hours of Regional Board-approved farm water quality education by the enrollment deadline
- b. complete a Farm Plan by the enrollment deadline
- c. provide a biennial practice implementation checklist to the Regional Board demonstrating that the Discharger is implementing the Farm Plan, or that the Discharger has made and is implementing appropriate changes to the Farm Plan
- d. perform individual water quality monitoring or participate in cooperative water quality monitoring

Tier 2 Qualifications and Reporting Requirements

Tier 2 conditional waivers will be one year in length, renewable up to three years. To qualify for a Tier 2 conditional waiver, operations must do the following:

- a. complete at least 5 hours of Regional Board-approved water quality education per year, up to a total of at least 15 hours (the first 5 hours may be completed after enrollment)
- b. complete a Farm Plan within three years of the enrollment deadline

- c. provide annual practice implementation checklists identifying currently implemented and planned management practices and progress reports on completion of requirements to the Regional Board
- d. perform individual water quality monitoring or participate in cooperative water quality monitoring

D. General Conditions for All Waiver Holders

1. The Discharger shall not cause or contribute to conditions of pollution or nuisance as defined in CWC Section 13050.
2. The Discharger must comply with all requirements of applicable water quality control plans.
3. The Discharger shall not cause or contribute to exceedances of any Regional, State, or Federal numeric or narrative water quality standard.
4. Wastewaters percolated into groundwater shall be of such quality at the point where they enter the ground so as to assure the protection of all actual or designated beneficial uses of all groundwaters of the basin.
5. Wastes discharged to groundwater shall be free of toxic substances in excess of maximum contaminant levels (MCLs) for primary and secondary drinking water standards established by the United States Environmental Protection Agency or California Department of Health Services, whichever is more stringent; taste, odor, or color producing substances; and nitrogenous compounds in quantities which could result in a groundwater nitrate concentration (as NO₃) above 45 mg/l.
6. The Discharger shall comply with each applicable Total Maximum Daily Load (TMDL), including any plan of implementation for the TMDL, commencing with the effective date or other date for compliance stated in the TMDL. If an applicable TMDL does not contain an effective date or compliance date, the Discharger shall commence compliance with the TMDL's implementation plan no later than twelve months after USEPA approves the TMDL.
7. The Discharger shall comply with applicable time schedules.
8. This Conditional Waiver does not authorize the discharge of any waste not specifically regulated under this Order. Waste specifically regulated under this Order includes: earthen materials, including soil, silt, sand, clay, rock; inorganic materials including metals, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.; and organic materials such as pesticides that enter or threaten to enter into waters of the state. Examples of waste not specifically regulated under this Order include hazardous materials, and human wastes.
9. Objectionable odors due to the storage of wastewater and/or stormwater shall not be perceivable beyond the limits of the property owned or operated by the Discharger.

PART III. RECOMMENDATIONS

1. Controlling pollutants at the source should be the primary approach to water quality protection.

2. Irrigation efficiency improvement should be used to minimize wastewater generation.
3. Crop nutrient requirements should be evaluated to minimize fertilizer applications.
4. Irrigation water nitrate and soil nitrate content should be incorporated in fertilization decisions.
5. Erosion control should be considered as part of storm water management and irrigation water management.
6. Integrated pest management techniques, such as pest population monitoring, should be incorporated into pest control decision-making to minimize use of pesticides.

PART IV. PROVISIONS

1. The Discharger shall comply with an individual or cooperative Monitoring and Reporting Program approved by the Regional Board Executive Officer.
2. A copy of the Conditional Waiver and farm water quality plan shall be kept at the operation for reference by operating personnel. Key operating and site management personnel shall be familiar with its contents.
3. In the event of any change in control or ownership of an operation presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this conditional waiver order by letter, a copy of which shall be immediately forwarded to the Regional Board Executive Officer. The new Discharger shall submit a NOI within 30 days.
4. The Discharger shall take all reasonable steps to prevent any discharge in violation of this conditional waiver.
5. The Discharger shall furnish the Regional Board, within a reasonable time, any information that the Board may request to determine compliance with this conditional waiver Order.
6. The Discharger shall allow Regional Board staff reasonable access onto the subject property (the source of runoff and percolating water) whenever requested by Regional Board staff for the purpose of performing inspections and conducting monitoring, including sample collection, measuring, and photographing to determine compliance with conditions of the waiver.
7. Pursuant to CWC section 13267, the following information/reports shall be submitted to the Regional Board according to the following time schedule to ensure compliance with the terms and conditions of this Conditional Waiver, unless the Regional Board has granted a time extension¹:

¹ The Regional Board recognizes that the cooperative monitoring entity is not a discharger subject to regulation under the Porter-Cologne Water Quality Control Act. However, the cooperative monitoring entity must satisfy the milestones applicable to it before any individual discharger may rely on cooperative monitoring to satisfy the discharger's monitoring requirements.

| Reporting Tasks/Milestones | Responsible Party | Due Date |
|--------------------------------------|--------------------------|---|
| Notice of Intent | All Dischargers | January 1, 2005 |
| Annual Report | Tier 2 Dischargers | January 1, 2006 and annually thereafter |
| Management Practice Checklist Update | Tier 1 Dischargers | January 1, 2007 |

| Monitoring Tasks/Milestones | Responsible Party | Due Date |
|--|---|---|
| Establish an Agricultural Committee* | Cooperative Monitoring Program | September 1, 2004 |
| Establish a Cost Allocation Subcommittee* | Cooperative Monitoring Program | November 1, 2004 |
| Establish a Agricultural Monitoring Subcommittee* (not required) | Cooperative Monitoring Program | As early as possible |
| Establish a Cooperative Monitoring Entity* | Cooperative Monitoring Program | January 1, 2005 |
| Approved Quality Assurance Project Plan and Sampling Plan | Cooperative Monitoring Program/Individual Dischargers | January 1, 2005 |
| Start Date Salinas and Santa Maria Area Monitoring | Cooperative Monitoring Program | January 1, 2005 |
| Start Date for Individual Monitoring | Individual Dischargers | October 1, 2005 |
| Submit List of Participants in Cooperative Monitoring Program | Cooperative Monitoring Program | January 1, 2006 |
| Submit Cost Allocation Formula | Cooperative Monitoring Program | January 1, 2006 |
| Start Date for Regionwide Cooperative Monitoring | Cooperative Monitoring Program | January 1, 2006 |
| Electronic Monitoring Data Submittal | Cooperative Monitoring Program/Individual Dischargers | Three months after start of monitoring and quarterly thereafter |
| Hard Copy Monitoring Report Submittal | Cooperative Monitoring Program/Individual Dischargers | January, 2007 and annually thereafter |

* The Agricultural Committee will have the sole authority to determine the membership of the Agricultural Monitoring Committee and Cost Allocation Committee. The Agricultural Committee is not required to open committee membership to the general public

8. All reports, NOI, or other documents required by this conditional waiver Order, and other information requested by the Regional Board shall be signed by the owner and/or operator of an irrigated operation.
9. Any person signing a NOI, monitoring report, or technical report makes the following certification, whether written or implied:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

10. Violations of this conditional waiver may result in enforcement actions as authorized under the CWC.
11. Conditional waivers may be issued for five years and may only be reissued after a public hearing. The conditional waiver will be reviewed at a public hearing on or before July 8, 2010. At that time, additional conditions may be imposed.
12. A waiver of WDRs for a type of discharge may be superseded by the adoption by the State Board or Regional Board of specific waste discharge requirements or general waste discharge requirements for specific discharges.
13. The Regional Board may review this Order and Conditional Waiver at any time and may modify or terminate the waiver in its entirety or for individual Dischargers as appropriate.
14. The Regional Board directs the Executive Officer to provide regular updates to the Regional Board regarding the effectiveness of the conditional waiver to regulate these types of discharges. These updates may include: Executive Officer Reports, memoranda, staff reports, workshops, and agenda items.
15. This Order and Conditional Waiver shall become effective July 10, 2010 and expire **December 31, 2011** unless rescinded, renewed or extended by the Regional Board.

I, Roger W. Briggs, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on July 8, 2010.

Roger W. Briggs
Executive Officer

EXHIBIT B

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 AEROVISTA PLACE, SUITE 101
SAN LUIS OBISPO, CALIFORNIA 93401**

Order No. R3-2004-0117

**Conditional Waiver of Waste Discharge Requirements
for
Discharges From Irrigated Lands**

The Central Coast Regional Water Quality Control Board finds:

1. The intent of this Conditional Waiver is to regulate discharges from irrigated lands to ensure that such discharges are not causing or contributing to exceedances of any Regional, State, or Federal numeric or narrative water quality standard. Irrigated lands are lands where water is applied for producing commercial crops and, for the purpose of this program, include, but are not limited to, land planted to row, vineyard, field and tree crops as well as commercial nurseries, nursery stock production and greenhouse operations with soil floors that are not currently operating under Waste Discharge Requirements (WDRs). Fully contained greenhouse operations (those that have no groundwater discharge due to impervious floors) are not covered under this Conditional Waiver and must either eliminate all surface water discharges of pollutants or apply for Waste Discharge Requirements. Lands that are planted to commercial crops that are not yet marketable, such as vineyards and tree crops, must also obtain coverage under this Conditional Waiver.
2. Discharges include surface discharges (also known as irrigation return flows or tailwater), subsurface drainage generated by installing drainage systems to lower the water table below irrigated lands (also known as tile drains), discharges to groundwater through percolation, and storm water runoff flowing from irrigated lands. These discharges can contain wastes that could affect the quality of waters of the state.
3. Discharger means the owner and/or operator of irrigated cropland on or from which there are discharges of waste that could affect the quality of any surface water or groundwater.
4. The Central Coast Region has approximately 600,000 acres of cropland under irrigation and more than 2,500 operations that are or may be discharging waste that could affect the quality of waters of the state.
5. Waters of the state is defined in Section 13050 of the California Water Code to be any surface or groundwater within the boundaries of the state.
6. Whether an individual discharge of waste from irrigated lands may affect the quality of waters of the state depends on the quantity of the discharge, quantity of the waste, the quality of the waste, the extent of treatment, soil characteristics, distance to surface water, depth to groundwater, crop type, management practices and other site-specific factors.

7. Waste discharges from some agricultural operations have and will continue to threaten the quality of the waters of the state, as shown by the number of water bodies on the Clean Water Act Section 303(d) list of impaired water bodies that identify agriculture as a potential source, particularly in the Central Coast Region.
8. Data collected through the Central Coast Ambient Monitoring Program and other monitoring identify water quality problems in areas of irrigated agriculture throughout the Region, including in groundwater.
9. California Water Code Section 13269 allows Regional Boards to waive submission of Reports of Waste Discharge (ROWDs) and/or issuance of Waste Discharge Requirements (WDRs) if it is in the public interest. On April 15, 1983, the Regional Board approved a policy allowing waivers of WDRs for 26 categories of discharges, including irrigation return flows and non-NPDES storm water runoff.
10. On October 10, 1999, Senate Bill 390 amended California Water Code Section 13269. The amendments extended all waivers in effect on January 1, 2000, for three years to January 1, 2003, unless terminated earlier, and required all existing waivers to expire on January 1, 2003, unless renewed.
11. As amended, CWC Section 13269 authorizes the Regional Board to waive WDRs for a specific discharge or specific types of discharges if the following conditions are met: 1) the waiver is in the public interest, 2) the waiver is conditional, 3) waiver conditions include performance of individual, group, or watershed-based monitoring, except for discharges that the Regional Board determines do not pose a significant threat to water quality, 4) compliance with waiver conditions is required, and 5) a public hearing has been held. The term of a waiver cannot exceed five years, but the Regional Board can renew a waiver after holding a public hearing. The Regional Board may terminate a waiver at any time.
12. The Regional Board, in compliance with amended CWC Section 13269, reviewed the previously issued categorical waivers for irrigation return flows and non-NPDES storm water runoff and determined that additional conditions are required to protect water quality.
13. Relevant factors in determining whether a waiver is in the public interest include the following: whether the discharge is already regulated by a local governmental entity which must continue to play a major role in regulating that type of discharge; whether the Discharger is observing reasonable practices to minimize the deleterious effects of the discharge; whether a feasible treatment method exists to control the pollutants in the discharge; and whether conditionally waiving ROWDs and/or WDRs will adequately protect beneficial uses while allowing the Regional Board to utilize more of its resources to conduct field oversight, public outreach and, where necessary, enforcement. Although local government entities do not regulate water quality impacts of agricultural operations, these operations are subject to pesticide regulation and reporting. In addition, various public and private entities provide education and field assistance to growers implementing best management practices. These entities include various Resource Conservation Districts, the Monterey Bay National Marine Sanctuary, the University of California Cooperative Extension, and the programs cited in Finding 17. The Regional Board has made supplemental environmental program funds available to farm-related activities such as a watershed coordinator and monitoring, and anticipates directing further grants toward these activities, as well as to on-farm management practice implementation. Compliance with the Conditional Waiver will include reasonable management practices to minimize water quality

impacts. Management practices that reduce the amount of waste produced or contain runoff are more feasible and more effective than treatment methods and will be strongly encouraged.

14. The adoption of the Conditional Waiver is also in the public interest because (1) it includes conditions that are intended to reduce and prevent pollution and nuisance and protect the beneficial uses of the waters of the state, (2) it contains more specific and more stringent conditions for protection of water quality compared to existing regulatory programs, (3) given the number of persons who discharge waste from irrigated lands and the magnitude of acreage involved, it provides for an efficient and effective use of limited Regional Board resources, (4) it provides flexibility for the Dischargers who seek coverage under the Conditional Waiver by providing them with the option of complying with monitoring requirements through participation in cooperative monitoring programs or individually, and (5) it builds on, rather than replaces, existing efforts within the Region.
15. The Conditional Waiver provides an alternative regulatory option to adoption of WDRs for all Dischargers. Dischargers may seek coverage under this program through a tiered waiver structure. Some operations may be immediately considered for WDRs because of a past history of violations or other problems of non-compliance; however, the vast majority of operations will be allowed time to meet requirements before being considered for WDRs. The conditions of the waiver require Dischargers to comply with applicable water quality control plans and water quality objectives.
16. It is not expected that Dischargers will achieve full compliance with all of the conditions immediately. In some areas, rising groundwater with nitrate levels exceeding the drinking water standard may influence surface water concentrations substantially, making water quality improvements difficult to achieve in the short term. In others, time will be required to find the most effective combination of practices to improve water quality. The cooperative water quality monitoring program is designed to focus attention on waterbodies where objectives are not being met and allow Dischargers time to adjust practices. Although time will be allowed, increased reporting and monitoring may be required in order to ensure that water quality is improving. Even if the Regional Board were to issue WDRs to Dischargers rather than adopting this waiver, compliance schedules under California Water Code Section 13263(c) would be appropriate in most cases.
17. The Central Coast Region has benefited from the proactive approach to protecting water quality taken by several segments of the agricultural industry. Notable examples include the Agricultural Water Quality Program of the Coalition of Central Coast County Farm Bureaus (Farm Bureau Coalition) and efforts to promote sustainable wine growing practices by the Central Coast Vineyard Team and the Central Coast Winegrowers Association. Efforts are also underway to promote sustainable practices by Spanish-speaking farmers through the Rural Development Center and the Agricultural Land-Based Training Association (ALBA) in Monterey County. A consideration in developing the new regulatory program was the impact such a program would have on existing water quality protection efforts by the agricultural industry. Continuing and building on such efforts is in the public interest. Staff has worked with the agricultural and environmental communities in the Region to find areas of agreement on the broad outline of an irrigated agriculture water quality program.

How does the Conditional Waiver give "credit" to growers who have been proactive in protecting water quality?

18. Under the Monterey Bay Sanctuary's Plan for Agriculture, the Farm Bureau Coalition is organizing growers into watershed working groups who attend Farm Water Quality Planning short courses as a group and develop farm plans. The Waiver's education and plan requirements are modeled on this, so growers who are participating in the Sanctuary effort will likely be in Tier 1 (see Part IIC, "Waiver Tiers") and have fewer reporting requirements and lower costs. Growers who have completed other qualifying water quality education classes and developed plans that meet the waiver requirements will also qualify for Tier 1. Vineyards operations that have completed Positive Point System evaluations will be able to use them as part of their farm plans. Regional Board staff also recommends that growers who meet the education and planning requirements and who have already implemented substantial management practices to protect water quality have reduced monitoring costs under the cooperative monitoring program, and be considered as a "low-threat" discharge (see below).

What is the management practice checklist?

19. The management practice checklist/self-assessment is a short questionnaire that allows the Discharger to identify management practices that are being implemented for water quality protection. The Regional Board will provide a template prior to the enrollment deadline. The template will include practices for irrigation management, nutrient management, pesticide management and erosion control. Dischargers will also be able to add practices if they are known or likely to have a water quality benefit. The template will be available on-line. Tier 1 dischargers will submit an updated checklist once during the waiver cycle (five years); Tier 2 dischargers will submit a checklist annually as part of their annual report. In areas where water quality monitoring identifies problems, checklists will be used to assess whether practices need to be adjusted or whether increased implementation is needed.

What is a "low-threat" discharge?

20. A low-threat discharge is a discharge that has very low potential to impact water quality because of management practices in place. For the purposes of this Conditional Waiver a low-threat discharge category could be defined in the cost allocation structure of the cooperative monitoring program and qualify for reduced monitoring costs.

If I have no discharge, do I have to apply for a Waiver?

21. If an operation does not discharge waste that could affect water quality, then there is no need to obtain coverage under the Conditional Waiver. "Waste" includes (among other things) any residual pesticide, herbicide, or fertilizer that is not taken up or beneficially used for its intended purpose. Any discharge of waste that could percolate to groundwater or run off in tail water or stormwater is a discharge for purposes of this waiver. Waste discharges also include sediment that runs off a field (erosion) due to land disturbance activities. It is very difficult to be certain that an operation has no discharge, particularly to groundwater or during storm events; however, Dischargers that qualify for Tier 1 have fewer reporting requirements and facilities that have implemented management practices may be considered for a low-threat discharge category in the cooperative monitoring program and could have reduced monitoring costs.

What if I lease land?

22. Under the terms of the Conditional Waiver, both owners and operators of irrigated land have responsibility for compliance with the conditions of the waiver. A farm map must be submitted along with the Notice of Intent (see Part II below). Farm water quality management plans must specify management practices for the operation identified in the map. Many management practices will be operational in nature and under the direct control of the operator, while structural practices which remain in place through changes in leaseholders will more likely be the responsibility of the landowner. In the event that the Regional Board undertakes enforcement action, it is likely that both the owner and the operator will be held accountable. Owners and operators may consider delineating these responsibilities in lease agreements; however, both the owner and operator will retain full legal responsibility for complying with all provisions of the applicable waiver.

How do I apply?

23. Dischargers seeking authorization to discharge under the Conditional Waiver shall submit a complete *Notice of Intent (NOI) to Comply with the Terms of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Land*. The Notice of Intent form will be available from the Regional Water Quality Control Board upon request and on the Regional Board's website.
24. Information that must be submitted as part of the NOI includes the location of the operation, identification of responsible parties (owners/operators), a map of the operation (should be the same as is submitted to the Agricultural Commission for pesticide use applications or equivalent), a management practice checklist/self-assessment on a template provided by the Regional Board, certification of completion of Regional Board-approved water quality education, a signed statement of farm water quality plan completion, if applicable, and which monitoring option is elected. Certificates of education and statement of plan completion will be used to evaluate which category of waiver is appropriate.

When do I apply?

25. The deadline for submitting a Notice of Intent is **January 1, 2005**. All task and milestone due dates are listed in Part IV (Provisions) of this Order. All Dischargers must apply for coverage under the conditional waiver by **January 1, 2005**.

Is a fee required?

26. Not at this time. Recently passed Senate Bill 923 authorizes the payment of fees for conditional waivers. A fee schedule may be set by the State Board based on a number of factors, including acreage, and monitoring and compliance costs. The Regional Board cannot charge fees until after the State Board adopts a fee schedule for waivers.

Is monitoring required?

27. California Water Code Section 13269 requires conditional waivers to include a monitoring program that verifies the adequacy and effectiveness of the waiver's conditions. Monitoring programs can be individual, group (cooperative), or watershed-based. As long as a Discharger

complies with all of the provisions and requirements of the waiver, if group monitoring adequately verifies that the waiver conditions adequately protect water quality, a cooperative monitoring approach satisfies Section 13269.

28. Monitoring requirements and options are described in Monitoring and Reporting Program (MRP) R3-2004-0117. All Dischargers will be required to elect a monitoring option. Dischargers may elect to perform individual monitoring or participate in cooperative monitoring. Cooperative monitoring in general offers a much less costly alternative to individual monitoring. A Discharger may change the monitoring option election at any time by submitted a revised NOI. The revised NOI must include a proposed monitoring and reporting plan (to elect individual monitoring) or a demonstration that the Discharger is participating in a cooperative monitoring program (for cooperative monitoring).

How will the cooperative monitoring program work?

29. The cooperative monitoring program, which was developed by Regional Board monitoring program staff, with input from the Agricultural Advisory Panel and researchers within the Region, will focus on currently applied agricultural constituents. The program calls for monitoring at sites located on the main stems and tributaries of rivers in the agricultural areas of the region. Monthly sampling will be conducted to analyze nutrients (nitrate, ammonia, orthophosphate) and some general parameters such as temperature, dissolved oxygen, total dissolved solids, pH, turbidity, and flow. Monthly monitoring of these constituents in a set of fixed locations will improve the Regional Board's ability to determine whether water quality is improving over time. It takes much longer to detect change, statistically speaking, with less frequent monitoring, and change detection is important for determining whether the waiver is effective. Monitoring of these conventional pollutants is less expensive than other program components, such as toxicity, and thus is a comparatively inexpensive way to increase the ability to detect improvements in water quality resulting from management practices. Data from the Regional Board's Central Coast Ambient Monitoring Program (CCAMP) shows that exceedances of these general water quality parameters are often associated with toxicity in waters affected by agricultural runoff. The cooperative monitoring program will make provision for follow-up monitoring with a certain fixed proportion of its budget, as another means of maintaining costs at a reasonable level.
30. Monitoring for individual pesticides can be expensive and does not assess additive or synergistic effects or impacts to beneficial uses. The cooperative monitoring program proposes instead to look first at in-stream effects, by performing toxicity testing at the same set of sites four times per year, twice during the irrigation season and twice during the storm season. The program will also characterize in-stream health by examination of insects and other invertebrates that live in the streams. In combination with toxicity sampling, this approach will enable the Regional Board to assess the overall impact of the discharges to beneficial uses, such as aquatic life and habitat.
31. Cooperative monitoring will allow growers to pool resources to meet monitoring requirements at a lower cost than individual monitoring. The monitoring sites will be located primarily in agricultural areas with previously identified water quality problems, but will also incorporate other monitoring efforts to provide coverage throughout the agricultural areas of the region. Regional Board staff is directed to work with the agricultural industry to assist the industry to establish or identify an existing nonprofit entity. This entity will be responsible for establishing a dues schedule, collecting funds and conducting the monitoring program adopted by the Regional Board. The Central Coast Ambient Monitoring Program will provide additional monitoring as part of its five-year rotation scheme, and monitoring data from other agencies will be

incorporated wherever possible. The nonprofit entity will also have the ability to receive grant funds and other sources of revenue to reduce costs to growers. The Regional Board strongly encourages the industry to seek available grant funds to reduce monitoring costs for participating Dischargers, either through a cooperative monitoring entity or through other eligible entities.

What will cooperative monitoring cost?

32. The total annual cost of the cooperative monitoring program is estimated to be between \$900,000 and \$1.0 million. The contribution of each discharger participating in the cooperative monitoring program will be based on a cost schedule developed by the agricultural industry and the nonprofit entity, as described in paragraph 31. Regional Board staff will work with the cooperative monitoring program to develop a reasonable cost to individuals based on a number of factors, including type of discharge and threat to water quality. Settlement funds and grant funds may be used to supplement resources and reduce overall costs.
33. The Regional Board encourages the cooperative monitoring program to develop reduced monitoring charges for low-threat discharges.

What are some considerations in establishing a monitoring program?

34. The monitoring program must verify the adequacy and effectiveness of the waiver's conditions. In establishing a monitoring program, the Regional Board may consider the volume, duration, frequency, and constituents of the discharge, and the extent and type of existing monitoring activities. The monitoring program can rely on other agencies' or organizations' water quality monitoring programs in lieu of establishing a separate monitoring program as long as those programs provide sufficient data of adequate quality; if other program data are of adequate quality but incomplete, the Board can still rely on the other data and limit the additional monitoring requirements to what is needed to fill data gaps.
35. There are a number of surface water quality monitoring programs in the Central Coast Region. However, few on-going programs assess impacts to beneficial uses from agricultural chemicals through chemical testing, toxicity testing or benthic invertebrate monitoring. The Regional Board's Central Coast Ambient Monitoring Program conducts relatively detailed monitoring on a five-year rotational cycle. Data from this program and others can be used to supplement the monitoring program, but will not provide sufficient data to verify the adequacy and effectiveness of the waiver, nor to detect improvements in water quality due to changes in management practices within the time frame of the waiver.

The Regional Board recognizes that a certain amount of time will be required to put a cooperative monitoring program in place, but an unreasonable delay in monitoring will violate CWC Section 13269, which requires monitoring to verify the adequacy of the waiver's conditions. Staff will assist the agricultural industry to identify a suitable entity to manage the cooperative monitoring program. The entity must demonstrate to the Executive Officer's satisfaction that it is technically able to carry out the monitoring and reporting program (either directly or by hiring a consultant or other acceptable organization to perform monitoring and reporting) and that it has or will have adequate financial resources to do so. Demonstration of financial capability should include development of a budget which may incorporate funding from outside sources, such as grants. A dues schedule should be developed in consideration of input from the agricultural industry. The entity, working with Regional Board staff, shall advise Dischargers on the availability of the cooperative monitoring program. Each Discharger covered by the waiver is ultimately responsible for compliance and must perform individual monitoring if the cooperative monitoring

is not established. The entity will notify the Regional Board of any enrolled dischargers who cease to comply with dues schedules or other enrollment requirements; such dischargers will be considered out of compliance with the conditions of the waiver unless they begin individual monitoring immediately. Staff will provide to the agricultural industry's "monitoring subcommittee," data as part of an inventory and review of existing data and monitoring efforts. The "monitoring subcommittee" may develop an alternative monitoring protocol for consideration by the Regional Board. The Board shall hold a public hearing and consider the agricultural industry's "monitoring subcommittee's" alternative monitoring protocol. Monitoring and Reporting Program R3-2004-0117 will be implemented as proposed, beginning in the lower Salinas/Elkhorn and Santa Maria areas, and shall be implemented by January 1, 2005. Full regionwide monitoring, in accordance with MRP R3-2004-0117 or an alternative monitoring protocol approved by the Regional Board at a public hearing, shall be implemented by January 1, 2006.

36. All requirements for technical and monitoring reports are pursuant to California Water Code section 13267. These reports are necessary to evaluate each Discharger's compliance with the terms and conditions of the Conditional Waiver, to verify the adequacy and effectiveness of the waiver's conditions and to evaluate whether additional regulatory programs or enforcement actions are warranted. Failure to submit reports in accordance with schedules established by this Order, Monitoring and Reporting Program R3-2004-0117, or an individual or cooperative monitoring plan, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

Why is agriculture being required to do more monitoring than other land uses?

37. California Water Code Section 13267 requires the cost of monitoring to be reasonable in light of the information to be obtained. Identified water quality problems in agricultural areas, in conjunction with the large number of Clean Water Act 303(d) listings that identify agriculture as a potential source justify greater monitoring than is necessary for other land uses, such as urban stormwater, which is not known to be causing as high a level of regional impact. However, when water quality monitoring indicates sources other than agriculture may be contributing to a problem, the other sources will be required to provide monitoring and other information to the Regional Board.

Is groundwater monitoring required?

38. No. Existing groundwater monitoring efforts around the region will be used in lieu of any agricultural groundwater monitoring requirements.

What if groundwater already violates standards?

39. Groundwater in many agricultural areas of the region shows nitrate levels exceeding drinking water standards. Growers will not be held liable for historical conditions. Since high nitrate groundwater in agricultural areas is often used for irrigation, farm plans need to include nutrient management practices to ensure that current discharges to groundwater do not further degrade groundwater. Plans also should account for specific nitrate concentrations in irrigation water in determining agronomic nitrogen application rates.

Am I expected to contain all stormwater on my property?

40. Although there is no requirement to contain all stormwater on site, all farm plans must identify practices to reduce discharges during storm events. Operations should choose the best combination of practices to reduce and/or detain runoff, reduce erosion and reduce the discharge of sediment, nutrients and pesticides during storms. Conservation practices that could pose a threat to public safety, for example, sediment detention basins that include earthen embankments, should conform to relevant local ordinances and engineering standards. Other management practices such as cover crops, filter strips, or furrow alignment, should aim to reduce runoff quantity and velocity, hold fine particles (silt and clay) in place, and increase infiltration to minimize impacts to stormwater quality. The goal of these combined practices should be to minimize stormwater runoff for the first half inch of rain during each storm, and to reduce runoff for the first one and one-half inches of rain during each storm. There is no requirement to contain or manage waste in stormwater runoff that enters the farm from off site, but the occurrence of such runoff does not change the goal of managing waste generated on site.

What happens if a Tier 2 discharger fails to meet requirements for Tier 1 within the three year time limit?

41. Dischargers who fail to meet Tier 1 requirements within three years will be issued Waste Discharge Requirements if they have made no progress toward meeting Tier 1 requirements. Progress includes completion of five hours of water quality training each year and progress toward completion of a farm water quality plan. Prior to issuance of Waste Discharge Requirements, the Discharger may ask the Regional Board to consider extenuating circumstances, such as lack of available training and financial hardship.

Regulatory Considerations

42. Basin Plan – The Regional Board adopted the Water Quality Control Plan, Central Coast Basin (Basin Plan) on September 8, 1994. The Basin Plan incorporates State Board plans and policies by reference and contains a strategy for protecting beneficial uses of surface and ground waters throughout the Region. This conditional waiver requires Dischargers to comply with all applicable provisions of the Basin Plan.
43. Beneficial Uses – Existing and potential beneficial uses of surface and groundwaters within the Central Coast Region include municipal and domestic supply; agricultural supply; industrial process and service supply; recreation; warm and cold freshwater habitat; wildlife habitat; migration; spawning; areas of special biological significance (now called State Water Quality Protection Areas or SWQPAs); rare, threatened or endangered species; freshwater replenishment; and groundwater recharge. Beneficial uses that apply to all waterbodies, unless otherwise identified in the Basin Plan, include municipal and domestic supply, recreation, and aquatic life (either warm or cold freshwater habitat, as applicable).
44. California Environmental Quality Act – For purposes of adoption of this Waiver Order, the Regional Board is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21100 et. seq.). The action to adopt a conditional waiver is intended to protect and improve water quality. The waiver order sets forth conditions that will require Dischargers to implement management practices to protect water quality and to monitor to ensure that such practices are effective and are improving water quality. The Regional Board

has not regulated the discharges subject to this waiver Order to this extent in the past. Such regulation will result in protection, maintenance and improvement of water quality. The Regional Board adopted a Negative Declaration in Resolution R3-2004-0118.

45. Anti-Degradation – This Order is consistent with the Provisions of State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California." Regional boards, in regulating the discharge of waste, must maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in a regional board's policies. This conditional waiver Order will result in improved water quality throughout the region. Dischargers must comply with all applicable provisions of the Basin Plan, including water quality objectives, and implement best management practices to prevent pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State. The conditions of this waiver will protect high quality waters and restore waters that have already experienced some degradation.
46. The goal of this Order and Conditional Waiver is to improve and protect water quality by providing a program to manage discharges from irrigated lands that cause or contribute to conditions of pollution or nuisance as defined in Section 13050 of the California Water Code or that cause or contribute to exceedances of any Regional or State Board numeric or narrative water quality standard by reducing discharges of waste.
47. Interested parties were notified of the intent to adopt a conditional waiver of waste discharge requirements for discharges from irrigated lands, including irrigation wastewater and/or stormwater, to surface waters and groundwater as described in this Waiver Order and were provided an opportunity for a public hearing and an opportunity to submit written comments.
48. In a public hearing, all comments pertaining to this Waiver Order were heard and considered.

IT IS HEREBY ORDERED that, pursuant to California Water Code sections 13263, 13267 and 13269, Dischargers of irrigation wastewater and/or stormwater from irrigated lands to waters of the state, who file for coverage under this Waiver Order in order to meet the provisions contained in California Water Code Division 7 and regulations and plans and policies adopted thereunder, and who request waiver of waste discharge requirements, shall comply with the following terms and conditions:

PART I. WAIVER

1. The discharge of any wastes not specifically regulated by the waiver described herein is prohibited unless the Discharger complies with CWC Section 13260(a) and the Regional Board either issues waste discharge requirements pursuant to CWC Section 13263 or an individual waiver pursuant to CWC Section 13269 or the time frames specified in CWC Section 13264(a) have elapsed.
2. The Regional Board waives the submittal of a ROWD and WDRs for discharges from irrigated land if the Discharger complies with the conditional waiver described in this Order and Monitoring and Reporting Program R3-2004-0117.

3. Dischargers shall take action to comply with the terms and conditions of the waiver adopted by this Order and improve and protect waters of the state.
4. This waiver shall not create a vested right and all such discharges shall be considered a privilege, as provided for in CWC Section 13263.
5. Pursuant to CWC Section 13269, this action waiving the issuance of waste discharge requirements for certain specific types of discharges: (a) is conditional, (b) may be terminated at any time, (c) does not permit an illegal activity, (d) does not preclude the need for permits which may be required by other local or governmental agencies, and (e) does not preclude the Regional Board from taking enforcement actions (including civil liability) pursuant to the CWC.

PART II. WAIVER PROGRAM

A. Definitions

1. Irrigated lands – lands where water is applied for the purpose of producing commercial crops. For the purpose of this Conditional Waiver, irrigated lands include, but are not limited to, land planted to row, vineyard, field and tree crops, commercial nurseries, nursery stock production, and greenhouse operations with soil floors.
2. Irrigation return flow – surface and subsurface water which leaves the field following application of irrigation water.
3. Tailwater – the runoff of irrigation water from the lower end of an irrigated field.
4. Stormwater runoff – the runoff of precipitation from the lower end of an irrigated field.
5. Subsurface drainage – water generated by installing drainage systems to lower the water table below irrigated lands. The drainage can be generated by subsurface drainage systems, deep open drainage ditches or drainage wells.
6. Discharge - a release of a waste to waters of the State, either directly to surface waters or through percolation to groundwater. Wastes from irrigated agriculture include earthen materials (soil, silt, sand, clay, rock), inorganic materials (metals, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.), and organic materials such as pesticides.
7. Discharger - the owner and/or operator of irrigated cropland on or from which there are discharges of waste that could affect the quality of any surface water or groundwater.
8. Requirement of applicable water quality control plans- a water quality objective, prohibition, Total Maximum Daily Load (TMDL) implementation plan, or other requirement contained in water quality control plans adopted by the Regional Board and approved according to applicable law.
9. Monitoring - refers to all types of monitoring undertaken in connection with determining water quality conditions and factors that may affect water quality conditions, including but not limited to, in-stream water quality monitoring undertaken in connection with agricultural

activities, monitoring to identify short and long-term trends in water quality, inspections of operations, management practice implementation and effectiveness monitoring, maintenance of on-site records and management practice reporting.

10. Farm Water Quality Management Plan (Farm Plan) - a document that contains, at a minimum, identification of practices that are currently being or will be implemented to address irrigation management, pesticide management, nutrient management and erosion control to protect water quality. Plans will contain a schedule for implementation of practices. Lists of water quality protection practices are available from several sources, including the University of California farm plan template available from the University of California and on-line at <http://anrcatalogue.ucdavis.edu/merchant.ihtml?pid=5604&step=4>.

11. All other terms shall have the same definitions as prescribed by California Water Code Division 7, unless specified otherwise.

B. Enrollment Process

All applicants must submit the following information as part of their Notice of Intent (NOI) to enroll:

- Completed application form, including location of the operation and identification of responsible parties (owners/operators)
- Copy of map of operation (map should be the same as the one submitted to the County Agricultural Commissioner for Pesticide Use Reporting, or equivalent)
- Completed management practice checklist/self assessment form
- Certificates of attendance at Regional Board-approved farm water quality education courses, if applicable
- Statement of farm water quality plan completion, if applicable
- Election for cooperative or individual monitoring

C. Waiver Tiers

Tier 1 Qualifications and Reporting Requirements

Tier 1 conditional waivers will be five years in length. To qualify for a Tier 1 conditional waiver, Dischargers must do the following:

- a. complete 15 hours of Regional Board-approved farm water quality education by the enrollment deadline
- b. complete a Farm Plan by the enrollment deadline
- c. provide a biennial practice implementation checklist to the Regional Board demonstrating that the Discharger is implementing the Farm Plan, or that the Discharger has made and is implementing appropriate changes to the Farm Plan
- d. perform individual water quality monitoring or participate in cooperative water quality monitoring

Tier 2 Qualifications and Reporting Requirements

Tier 2 conditional waivers will be one year in length, renewable up to three years. To qualify for a Tier 2 conditional waiver, operations must do the following:

- a. complete at least 5 hours of Regional Board-approved water quality education per year, up to a total of at least 15 hours (the first 5 hours may be completed after enrollment)
- b. complete a Farm Plan within three years of the enrollment deadline

- c. provide annual practice implementation checklists identifying currently implemented and planned management practices and progress reports on completion of requirements to the Regional Board
- d. perform individual water quality monitoring or participate in cooperative water quality monitoring

D. General Conditions for All Waiver Holders

1. The Discharger shall not cause or contribute to conditions of pollution or nuisance as defined in CWC Section 13050.
2. The Discharger must comply with all requirements of applicable water quality control plans.
3. The Discharger shall not cause or contribute to exceedances of any Regional, State, or Federal numeric or narrative water quality standard.
4. Wastewaters percolated into groundwater shall be of such quality at the point where they enter the ground so as to assure the protection of all actual or designated beneficial uses of all groundwaters of the basin.
5. Wastes discharged to groundwater shall be free of toxic substances in excess of maximum contaminant levels (MCLs) for primary and secondary drinking water standards established by the United States Environmental Protection Agency or California Department of Health Services, whichever is more stringent; taste, odor, or color producing substances; and nitrogenous compounds in quantities which could result in a groundwater nitrate concentration (as NO₃) above 45 mg/l.
6. The Discharger shall comply with each applicable Total Maximum Daily Load (TMDL), including any plan of implementation for the TMDL, commencing with the effective date or other date for compliance stated in the TMDL. If an applicable TMDL does not contain an effective date or compliance date, the Discharger shall commence compliance with the TMDL's implementation plan no later than twelve months after USEPA approves the TMDL.
7. The Discharger shall comply with applicable time schedules.
8. This Conditional Waiver does not authorize the discharge of any waste not specifically regulated under this Order. Waste specifically regulated under this Order includes: earthen materials, including soil, silt, sand, clay, rock; inorganic materials including metals, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.; and organic materials such as pesticides that enter or threaten to enter into waters of the state. Examples of waste not specifically regulated under this Order include hazardous materials, and human wastes.
9. Objectionable odors due to the storage of wastewater and/or stormwater shall not be perceivable beyond the limits of the property owned or operated by the Discharger.

PART III. RECOMMENDATIONS

1. Controlling pollutants at the source should be the primary approach to water quality protection.

2. Irrigation efficiency improvement should be used to minimize wastewater generation.
3. Crop nutrient requirements should be evaluated to minimize fertilizer applications.
4. Irrigation water nitrate and soil nitrate content should be incorporated in fertilization decisions.
5. Erosion control should be considered as part of storm water management and irrigation water management.
6. Integrated pest management techniques, such as pest population monitoring, should be incorporated into pest control decision-making to minimize use of pesticides.

PART IV. PROVISIONS

1. The Discharger shall comply with an individual or cooperative Monitoring and Reporting Program approved by the Regional Board Executive Officer.
2. A copy of the Conditional Waiver and farm water quality plan shall be kept at the operation for reference by operating personnel. Key operating and site management personnel shall be familiar with its contents.
3. In the event of any change in control or ownership of an operation presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this conditional waiver order by letter, a copy of which shall be immediately forwarded to the Regional Board Executive Officer. The new Discharger shall submit a NOI within 30 days.
4. The Discharger shall take all reasonable steps to prevent any discharge in violation of this conditional waiver.
5. The Discharger shall furnish the Regional Board, within a reasonable time, any information that the Board may request to determine compliance with this conditional waiver Order.
6. The Discharger shall allow Regional Board staff reasonable access onto the subject property (the source of runoff and percolating water) whenever requested by Regional Board staff for the purpose of performing inspections and conducting monitoring, including sample collection, measuring, and photographing to determine compliance with conditions of the waiver.
7. Pursuant to CWC section 13267, the following information/reports shall be submitted to the Regional Board according to the following time schedule to ensure compliance with the terms and conditions of this Conditional Waiver, unless the Regional Board has granted a time extension¹:

¹ The Regional Board recognizes that the cooperative monitoring entity is not a discharger subject to regulation under the Porter-Cologne Water Quality Control Act. However, the cooperative monitoring entity must satisfy the milestones applicable to it before any individual discharger may rely on cooperative monitoring to satisfy the discharger's monitoring requirements.

| Reporting Tasks/Milestones | Responsible Party | Due Date |
|--------------------------------------|--------------------|---|
| Notice of Intent | All Dischargers | January 1, 2005 |
| Annual Report | Tier 2 Dischargers | January 1, 2006 and annually thereafter |
| Management Practice Checklist Update | Tier 1 Dischargers | January 1, 2007 |

| Monitoring Tasks/Milestones | Responsible Party | Due Date |
|--|---|---|
| Establish an Agricultural Committee* | Cooperative Monitoring Program | September 1, 2004 |
| Establish a Cost Allocation Subcommittee* | Cooperative Monitoring Program | November 1, 2004 |
| Establish a Agricultural Monitoring Subcommittee* (not required) | Cooperative Monitoring Program | As early as possible |
| Establish a Cooperative Monitoring Entity* | Cooperative Monitoring Program | January 1, 2005 |
| Approved Quality Assurance Project Plan and Sampling Plan | Cooperative Monitoring Program/Individual Dischargers | January 1, 2005 |
| Start Date Salinas and Santa Maria Area Monitoring | Cooperative Monitoring Program | January 1, 2005 |
| Start Date for Individual Monitoring | Individual Dischargers | October 1, 2005 |
| Submit List of Participants in Cooperative Monitoring Program | Cooperative Monitoring Program | January 1, 2006 |
| Submit Cost Allocation Formula | Cooperative Monitoring Program | January 1, 2006 |
| Start Date for Regionwide Cooperative Monitoring | Cooperative Monitoring Program | January 1, 2006 |
| Electronic Monitoring Data Submittal | Cooperative Monitoring Program/Individual Dischargers | Three months after start of monitoring and quarterly thereafter |
| Hard Copy Monitoring Report Submittal | Cooperative Monitoring Program/Individual Dischargers | January, 2007 and annually thereafter |

* The Agricultural Committee will have the sole authority to determine the membership of the Agricultural Monitoring Committee and Cost Allocation Committee. The Agricultural Committee is not required to open committee membership to the general public

July 9, 2004

8. All reports, NOI, or other documents required by this conditional waiver Order, and other information requested by the Regional Board shall be signed by the owner and/or operator of an irrigated operation.
9. Any person signing a NOI, monitoring report, or technical report makes the following certification, whether written or implied:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

10. Violations of this conditional waiver may result in enforcement actions as authorized under the CWC.
11. Conditional waivers may be issued for five years and may only be reissued after a public hearing. The conditional waiver will be reviewed at a public hearing on or before May 13, 2009. At that time, additional conditions may be imposed.
12. A waiver of WDRs for a type of discharge may be superseded by the adoption by the State Board or Regional Board of specific waste discharge requirements or general waste discharge requirements for specific discharges.
13. The Regional Board may review this Order and Conditional Waiver at any time and may modify or terminate the waiver in its entirety or for individual Dischargers as appropriate.
14. The Regional Board directs the Executive Officer to provide regular updates to the Regional Board regarding the effectiveness of the conditional waiver to regulate these types of discharges. These updates may include: Executive Officer Reports, memoranda, staff reports, workshops, and agenda items.
15. This Order and Conditional Waiver shall become effective **July 9, 2004** and expire **July 9, 2009** unless rescinded, renewed or extended by the Regional Board.

I, Roger W. Briggs, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on July 9, 2004.

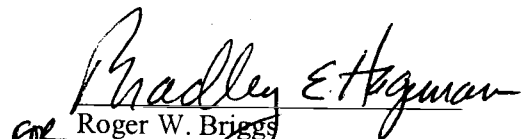

FOR Roger W. Briggs
Executive Officer

EXHIBIT C

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR JULY 8, 2004

Prepared June 18, 2004

ITEM: 3

SUBJECT: Proposed Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands in the Central Coast Region (Region 3)

SUMMARY

In 1999 California Water Code section 13269 was amended, causing all waivers of waste discharge requirements (WDRs) that existed on January 1, 2000, to expire on January 1, 2003. Two Region 3 waivers applicable to irrigated agriculture, one for irrigation return water and the other for non-NPDES stormwater discharges, have now expired and must be replaced. In the years since the adoption of the original waivers in 1983, water quality in Region 3's agricultural areas has been shown to be impaired by such constituents as pesticides and nutrients, lending further urgency to the need to adopt additional requirements for irrigated operations.

The goal of the conditional waiver program is to ensure that all farm operations are actively protecting water quality, that water quality objectives are being met, and that beneficial uses of water are protected or restored.

The proposed waiver has the following conditions:

- Completion of 15 hours of farm water quality training
- Development of a farm water quality management plan that addresses, at a minimum, irrigation management, nutrient management, pesticide management and erosion control
- Implementation of management practices identified in the plan
- Submittal of a Notice of Intent and periodic progress reports
- Performance of water quality monitoring
- Compliance with Basin Plan requirements and water quality standards

The Regional Board held three workshops to receive public input on the proposed conditional waiver. Workshops were held in Santa Barbara (October 23, 2003), Salinas (January 9, 2004), and San Luis Obispo (February 5, 2004). Comments received for the February workshop are included in Attachment 6 along with staff responses.

Regional Board staff completed a draft Negative Declaration for the proposed project under the California Environmental Quality Act (CEQA) which was released for public comment on March 22, 2004. A copy of the Initial Study and Negative Declaration is included as Attachment 1. A Resolution adopting the Negative Study is included as Attachment 2. The proposed Conditional Waiver and proposed Monitoring and Reporting Program are included as Attachments 3 and 4. Monitoring scenarios and estimated costs are included in Attachment 5. Comments received on the Initial Study and Negative Declaration, the proposed Conditional Waiver and proposed Monitoring and Reporting Program are included in Attachment 6, along with staff's responses. Comment letters received are included in Attachment 7. **All attachments will be posted on the Regional Board's website (www.swrcb.ca.gov/rwqcb3/AGWaivers/Index.htm) and available in hard copy by contacting Alison Jones at (805) 542-4646.**

BACKGROUND

Agriculture in the Central Coast Region

Irrigated agriculture is a major land use in the Central Coast Region, encompassing approximately 600,000 acres. More than 100 different crops are grown and agricultural activities take place year round. Major crops include vegetable crops (such as lettuce, broccoli, cauliflower, celery, cabbage and spinach), fruits (such as strawberries and wine grapes), cut flowers, and potted plants. Other crops include artichokes, raspberries, asparagus, carrots, onions, snap peas, and many more.

There are about 2500 agricultural operations in the region that could be enrolled under this program, and they range in size from less than ten acres to more than 2000; however, approximately two-thirds of all operations are less than fifty acres. About one-third are less than ten acres. Fewer than 200 operations (less than 8%) exceed 2000 acres.

Irrigated agriculture is concentrated in several major drainages, including the Salinas Valley and upper Salinas watershed, the Pajaro Valley, the lower Santa Maria River, the Santa Ynez watershed and the Santa Barbara coastal area. Irrigated farmland is found in numerous small drainages throughout the region, as well.

A number of factors combine to make agriculture in this region unique. In general, farming is on a smaller scale than in the Central or Imperial Valleys. The Central Coast climate is unique in California and comprises a “niche” in the agricultural industry that distinguishes Central Coast farm products from other areas. As mentioned above, the majority of operations are less than 50 acres. There are no large irrigation districts since most operations use groundwater as their water source. Many properties have been held in families for generations and are leased out rather than farmed by the owner. The area is considered highly desirable, and growth pressures drive up the price of agricultural rents. There is a mixture of owned and leased lands and many operators own some farms and lease others. Leases can be either short or long term (one year or more than five years), resulting in varying incentive by leaseholders to implement water quality protection.

Crop prices are primarily controlled by the existing market structure. Consolidation in the food industry has resulted in a smaller group of buyers, giving corporate retailers more bargaining power. In addition, local farmers often compete with products

from other countries, where the costs of production may be substantially less. The result is that growers often have little control over the price they are paid even though the costs of producing and delivering products continues to rise. Additionally, issues of food safety are increasingly dictating practices growers must use in order to sell crops, and some recommended food safety practices may run counter to water quality protection practices. Because of these and other factors, the agricultural industry is extremely sensitive to cost increases and management practice requirements.

Water Quality in Agricultural Areas

Over the past five years, the Regional Board’s Central Coast Ambient Monitoring Program (CCAMP) has provided information to characterize water quality, support waterbody beneficial use determinations, support waterbody listings for impairment, and to evaluate regional priorities.

CCAMP data, as well as other data sources, have shown that waterbodies in areas of intensive agriculture often have high levels of nutrients. For example, nitrate in some surface waters is present at levels far in excess of the drinking water standard of 10 mg/L as N (nitrogen). Persistent toxicity has also been documented in some areas of intensive agricultural operations, with its cause being traced to currently applied pesticides. Of approximately 175 surface waterbodies that are on the Central Coast Region’s 2002 Clean Water Act Section 303(d) list of impaired waters, about 75 identify agriculture as a potential source. In addition, many groundwater basins underlying agricultural areas in the Central Coast Region show elevated nitrate concentrations, in many cases well over the drinking water standard.

Existing Efforts by the Agricultural Industry to Address Water Quality Issues

The Central Coast Region has benefited from the proactive approach taken by several segments of the agricultural industry. Notable examples include the Agricultural Water Quality Program of the Coalition of Central Coast County Farm Bureaus (Farm Bureau Coalition) and efforts to promote sustainable wine growing practices by the Central Coast Vineyard Team and the Central Coast Winegrowers Association. Efforts are also underway to promote sustainable practices by Spanish-speaking farmers through the Rural Development Center and the Agricultural Land-

Based Training Association (ALBA) in Monterey County.

The Farm Bureau Coalition has been working to address agricultural water quality impacts in areas that drain to the Monterey Bay National Marine Sanctuary, which represents approximately two-thirds of the region. This is a broadly supported cooperative effort that is implementing the Sanctuary's Plan for Agriculture and Rural Lands. The Sanctuary Plan was developed in cooperation with the California State Farm Bureau Federation and the Coalition of Central Coast County Farm Bureaus, the Regional Board and numerous other partners, including University of California Cooperative Extension, the Natural Resource Conservation Service and local Resource Conservation Districts.

Key components of the Sanctuary Plan implementation strategy include formation of grower working groups, and development and implementation of farm water quality management plans. Technical assistance is provided by Farm Bureau watershed coordinators active in each county, as well as all of the other partners listed above. Farm Bureau watershed coordinators provide the Regional Board with annual reports summarizing practice implementation and self-monitoring results by grower watershed working groups.

A small but significant (and increasing) percentage of growers on the Central Coast are participating in this program. As of March 2004, there were 17 active grower working groups and another 17 in the process of organizing. Staff estimates that active participants represent approximately 10-15% of operations in the region. Participants are often industry leaders who have chosen to be proactive in addressing water quality concerns.

Another industry-led effort has been underway for several years to promote sustainable practices by wine grape growers. There are approximately 100,000 acres of grapes in the Central Coast. Most vineyards are irrigated, so grapes are grown on about 16% of the irrigated croplands in the region. Many of the growers have undertaken an evaluation process to assess irrigation, nutrient management, pest management, and erosion control practices through the Positive Point System developed by the Central Coast Vineyard Team (CCVT). CCVT estimates that approximately 75-100 operations

have completed evaluations and are using them to evaluate management practices and identify opportunities for improvement. It is still too early to determine if these efforts are having a positive impact on water quality, but the waiver monitoring program should help determine whether such efforts, done on a large scale, can improve water quality over time.

Regulatory Requirements

Although discharges from irrigated agriculture are exempt from regulation through the National Pollutant Discharge Elimination System (NPDES) permit program of the federal Clean Water Act, they are not exempt from state law. Any discharge from irrigated agricultural activities to surface water or to land, that impacts or could impact water quality, is subject to regulation under the California Water Code (CWC).

CWC Section 13260 requires persons who are discharging or who propose to discharge waste where it could impact the quality of waters of the State to submit a Report of Waste Discharge. The Regional Board uses the Report of Waste Discharge in preparing Waste Discharge Requirements that regulate the discharges of waste in compliance with the CWC and other applicable laws and regulations. The purpose of this regulatory program is to protect the beneficial uses of the waters of the State.

CWC Section 13269 authorizes the Regional Board to waive Waste Discharge Requirements for a specific discharge or specific type of discharge if the waiver is in the public interest. The waiver must be conditional and may be terminated at any time. The Regional Board may also waive the requirement to submit a Report of Waste Discharge. In 1999, Senate Bill 390 amended CWC Section 13269. CWC Section 13269 now specifies that all waivers in effect on January 1, 2000, were terminated on January 1, 2003, unless renewed following a hearing. Waivers expire after five years unless renewed by the Board after appropriate review.

In 1983, the Regional Board approved a list of categories of discharge for which waste discharge requirements could be waived, including discharge of irrigation return flows (tailwater)

and non-NPDES stormwater runoff. When waivers for discharges from irrigated agriculture were adopted in 1983, little was known about the potential impacts of irrigation tail water and other runoff or the magnitude of groundwater impacts from the use of inorganic fertilizers. Regional Board regulatory effort at that time was largely focused on addressing point source discharges such as wastewater treatment plants and industrial dischargers, and cleanups from spills and leaks. The 1983 waivers pertaining to irrigated agriculture were not renewed before January 1, 2003, and have now terminated.

In 1987, Section 319 was added to the Clean Water Act to address nonpoint source pollution, and subsequently the State of California adopted its Nonpoint Source Program in 1988. Although staff resources to implement the program were extremely limited, the Regional Board began to work with agriculture through the Nonpoint Source (NPS) Program and later the State's Watershed Management Initiative. Since the inception of the NPS program, the Regional Board's emphasis in working with agriculture has been on encouraging proactive efforts to address water quality concerns, and supporting such cooperative partnerships as Monterey Bay National Marine Sanctuary's Plan for Agriculture. The Regional Board has directed grant funding toward increasing educational outreach, and has encouraged efforts toward self-determined compliance with water quality regulations through promotion of ranch and farm water quality management planning short courses throughout the region.

The State's NPS Plan identifies waivers as an appropriate regulatory tool available to protect water quality from NPS pollution, recognizing the challenges involved in regulating a large number of individual dischargers.

The State recently adopted an updated policy for implementing the NPS Plan, which identifies five key elements that must be included in NPS management plans. Those elements are:

Element 1: Goal and purpose

Element 2: Description of practices to be implemented and process used to select, verify and ensure practice implementation

Element 3: Time schedule and milestones

Element 4: Feedback mechanisms

Element 5: Consequences of failure

Although the revised policy will not become effective until approved by the Office of Administrative Law, the proposed conditional waiver program will incorporate the key elements into program implementation as described below.

DEVELOPING A NEW REGULATORY PROGRAM

Staff followed an evolving process in developing the proposed conditional waiver. In the fall of 2002, lead staff met with other Regional Board staff from both regulatory and nonregulatory programs to gather input and discuss the most appropriate approach for replacing expired agricultural discharge waivers. Staff discussed three options:

- 1) allowing the waivers to expire and continuing to work with agriculture through existing voluntary efforts such as the Sanctuary program, the Central Coast Vineyard Team and other proactive efforts;
- 2) developing a new conditional waiver that was designed to build on the existing efforts; or
- 3) developing general or individual Waste Discharge Requirements.

After considerable discussion, lead staff and management came to agreement on moving forward with a new conditional waiver, modeled in part on existing voluntary programs, with group enrollment and reporting. The conditional waiver would offer increased regulatory oversight, but would have the flexibility to build on existing proactive efforts. Staff then met informally with several agricultural and environmental groups around the region to explain what was being proposed and obtain their input. During the course of several meetings, it became apparent that both the agricultural and environmental interests had legitimate concerns that were not likely to be addressed through the Regional Board's usual regulatory process. Staff

then proposed to several groups that it might be worthwhile to have the parties work together. There was considerable support for the idea.

Agricultural Advisory Panel

In February 2003, staff convened an advisory group of agricultural and environmental representatives from across the Region. Staff's intent was to have a panel that represented most of the major agricultural interests as well as key environmental organizations. Originally, the size was to be 8 to 10, but it soon became apparent that more agricultural representatives were needed to accommodate several counties and many organizations. Although some panel members changed through the course of the year, all original organizations continued to be represented. Participant numbers were usually about 20. Participating organizations included the Ocean Conservancy, the Central Coast Coalition of County Farm Bureaus, Monterey County Farm Bureau, Jefferson Farms, Santa Cruz County Farm Bureau, San Benito County Farm Bureau, the Environmental Center of San Luis Obispo (ECOSLO), the Environmental Defense Center, Monterey Bay National Marine Sanctuary, the Agricultural Land-Based Training Association (ALBA), the Central Coast Winegrowers Association, San Luis Obispo County Farm Bureau and Cattlemen's Association, Santa Barbara County Farm Bureau, Grower Shipper Vegetable Association of Santa Barbara, and Santa Barbara Channel Keeper. Several other organizations that were contacted felt that their interests were adequately represented but expressed a desire to be kept informed.

Panel meetings were conducted as facilitated discussion sessions. The group adopted ground rules and spent time hearing about the interests and concerns of each of the participants. The panel heard concerns about fertilizers and pesticides getting into streams and concerns about the costs of a program and agriculture's inability to pass costs along to consumers. In this way, a foundation of understanding was built that allowed the participants to discuss ideas and propose solutions in a respectful environment. At the second meeting, the panel agreed on a mission statement, which reads, "The goal of the panel is to assist staff in developing

recommendations to the Regional Board for a replacement to the expired waivers that will be protective of water quality, the viability of Central Coast agriculture, and comply with state law."

Panel Recommendations

All panel recommendations were developed by consensus. Where the panel did not have consensus, the proposed recommendation was not included in the panel's final recommendations to staff. The panel considered the requirements of the law, each party's interests and existing agricultural efforts to protect water quality. The panel discussed what was being done by agriculture to implement the Sanctuary Plan for Agriculture, such as hiring Farm Bureau coordinators who were helping to organize groups of growers in watersheds, arranging for UCCE Farm Water Quality short courses and compiling reports on working group activities.

The panel reached agreement on the education and farm water quality plan development requirements, management practice implementation and reporting through a checklist format, and the tiered structure of the waivers, which offer reduced reporting for those meeting all requirements by the enrollment deadline. The panel also recommended that monitoring focus on currently applied agricultural constituents, make use of existing monitoring resources wherever possible, and be structured on a cooperative basis rather than on individual discharge monitoring.

There were a number of issues where the panel did not develop a consensus on recommendations, including how to address groundwater and stormwater issues, and the details of a cooperative monitoring program. In many ways, these are the most difficult issues the panel faced, and several meetings were devoted to exploring them.

Discharges to groundwater are included in the waiver because of Region 3 Basin Plan requirements and because of widespread and well-documented nitrate contamination in groundwater basins underlying agricultural areas

throughout the region. Staff is not proposing to require groundwater monitoring, but the waiver requires dischargers to identify practices that will protect groundwater as well as surface water.

Stormwater discharges were covered under the original 1983 waivers. New requirements were developed by staff with input from technical service providers. Several comment letters expressed concern with the language about stormwater discharges. The waiver does not mandate containment of stormwater and the language in the order has been revised to clarify that point.

Staff proposed a cooperative monitoring approach as a way to meet regulatory requirements without the overwhelming financial burden of individual monitoring. Staff developed the program based on the experience of managing the CCAMP program, input from academic researchers, and review of other monitoring programs. Considerable discussion revolved around the need for expensive toxicity testing and the frequency of monthly conventional sampling. The program was designed to assess both water quality and beneficial use support, which staff believes is necessary in order to determine effectiveness of the waiver. Staff examined variability of various key parameters in the CCAMP database to evaluate needed sampling frequency; monthly sampling requirements for conventional water quality were based on the need to document improvement within the five to ten years staff anticipates will be needed to substantially improve water quality.

PROPOSED WAIVER

The Regional Board proposes to adopt a conditional waiver of waste discharge requirements and a waiver of the requirement to submit a report of waste discharge for discharges of waste from irrigated lands. Irrigated lands are lands where water is applied for producing commercial crops and, for the purpose of this program, include, but are not limited to, land planted to row, vineyard, field and tree crops as well as commercial nurseries, nursery stock production and greenhouse

operations with soil floors that are not currently operating under Waste Discharge Requirements (WDRs). Fully contained greenhouse operations (those that have no groundwater discharge due to impervious floors) are not covered under this Conditional Waiver and must either eliminate all surface water discharges or apply for Waste Discharge Requirements. Lands that are planted to commercial crops that are not yet marketable, such as vineyards and tree crops, must also obtain coverage under this Conditional Waiver.

Discharges include surface discharges (also known as irrigation return flows or tailwater), subsurface drainage generated by installing drainage systems to lower the water table below irrigated lands (also known as tile drains), discharges to groundwater, and storm water runoff flowing from irrigated lands. These discharges can contain wastes that could affect the quality of waters of the state.

Discharger means the owner and/or operator of irrigated cropland on or from which waste is discharged that affects or could affect the quality of waters of the state.

Tiered Waiver Structure

Two categories of conditional waivers are proposed, in acknowledgement that a significant number of farmers in the Central Coast Region have already begun to actively address water quality protection by obtaining water quality education, developing farm plans or completing practice assessment tools, and changing their practices to protect and improve water quality.

Tier 1 (five-year) waivers are intended for those dischargers that have already completed a minimum of fifteen hours of farm water quality training, have completed farm water quality plans, and have begun the process of implementing management practices to protect water quality. Tier 1 waivers are valid for five years or the length of time remaining in the five-year waiver cycle.

Tier 2 (one-year) waivers are intended for those dischargers that cannot meet all requirements of Tier 1 by the enrollment deadline of December 1, 2004. Tier 2 waivers are renewable annually for a maximum of three years. A discharger may move from Tier 2 to Tier 1 at any time during the three year period. Tier 2 dischargers that have not met all requirements for a Tier 1 waiver by the end of three years may be

required to apply for waste discharge requirements unless they can demonstrate progress toward meeting Tier 1 requirements as well as extenuating circumstances, such as lack of available training classes, that prevented them from meeting all requirements within the allotted time period.

Tiered conditional waivers will provide increased regulatory oversight and focus attention on those dischargers that have not begun to address water quality issues, while allowing those dischargers that are already working toward full compliance with water quality objectives to devote their time and resources to implementing management practices. The time schedule will allow a limited amount of time to meet requirements for education and planning, and allow time for implementation and adjustment of management practices. Dischargers will report current and planned management practice implementation upon enrollment and during the five-year waiver cycle through annual or biennial reports. Waste discharge requirements and enforcement will be reserved for non-compliant dischargers, or if water quality does not improve. Draft Order R3-2004-0XYZ, Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands is included as Attachment 3.

PROGRAM IMPLEMENTATION AND ENFORCEMENT

Compliance with the State's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program

The new *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (NPS Policy) will require any program adopted to address NPS pollution to contain five key elements, as described below. Although the NPS Policy will not take effect until the Office of Administrative Law approves it, Regional Board staff provides the following information in an effort to meet the informational policies of the NPS Policy.

Element 1: The goal and purpose of the conditional waiver program is to achieve and maintain water quality objectives and beneficial uses of the state's waters, including antidegradation where applicable. Staff recognizes that meeting this goal is a long-term effort, and cannot be achieved during the five-year waiver cycle. Goals of the conditional waiver program during the next

five years are to ensure that all farm operations are actively protecting water quality, that progress toward achieving water quality objectives is made, and that beneficial uses of water are protected or restored in compliance with the policies of the Porter-Cologne Water Quality Control Act.

Element 2: Management practices to be implemented by irrigated agricultural operations include practices aimed at improving irrigation efficiency, managing nutrients and pesticides effectively, and improving erosion control. Within each of these categories, growers may choose from a substantial number of management practices. Typical management practices include cover crops, buffer strips, filter strips, grassed roadways and ditches, sediment detention basins, water and soil nitrate testing, fertilizer placement and timing, irrigation method and efficiency, irrigation timing based on crop needs, recycling of irrigation water, pest population monitoring and use of thresholds, and many others. Farm plans will identify currently implemented practices and what is being planned.

The water quality education requirement ensures that growers will have up-to-date information on the most effective practices and will be able to choose the best combination of practices for their particular operation.

Element 3: Time schedule and milestones are an essential part of the program. Although the Regional Board's goal is 100% compliance with the conditions of the program, staff recognizes that this is unlikely to occur immediately for a variety of reasons. Staff will focus considerable effort on outreach during the first six months after the waiver's adoption, to ensure that both landowners and operators are aware of new requirements. A database is being compiled which includes both pesticide use reporting information and county assessors' information, to ensure that landowners and operators are being contacted. Staff intends to use the following schedule of timelines and milestones to implement the program:

January 1, 2005 – A minimum of 50% of dischargers are enrolled

July 1, 2005 – A minimum of 80% of dischargers are enrolled, and 50% are enrolled in the cooperative monitoring program

January-March 2005 – phone calls, Notice of Violation letters sent out to dischargers who have not enrolled in the program or submitted reports of waste discharge

March-July 2005 – Enforcement actions initiated against dischargers who have not enrolled in the program or submitted reports of waste discharge

July 2005 and annually thereafter – Program review before the Board

July 2006 – Management practices will be implemented on a minimum of 50% of irrigated farmlands in the region and identified through a Notice of Intent and practice checklists

July 2007 – Monitoring Program review before the Board

July 2009 – Management practices will be implemented on a minimum of 80% of irrigated farmlands within the region.

Water Quality Monitoring program data will be reviewed monthly, and a water quality report will be produced for each annual program review. In watersheds with significant impairments and developed or implemented TMDLs, staff will coordinate with TMDL schedules to set goals for attainment of water quality objectives. The program's overall goal will be to show improvements in water quality in irrigated lands through the monitoring program within five to ten

years of program implementation, and to achieve and maintain water quality objectives within TMDL schedules or within ten years of waiver program implementation.

Element 4: Feedback mechanisms are incorporated into the reporting requirements, which require submittal of management practice checklists and annual reports and water quality monitoring requirements. Oversight by the Regional Board will include review of reports and field verification and will be summarized as part of the annual program review. Dischargers will submit a Notice of Intent to obtain coverage under the waiver, along with a farm map, certificates of education and a checklist of practices. This checklist will contain a subset of potential practices available for each management measure, to allow Regional Board to assess overall implementation of practices in an area. The intent is not to maintain an exhaustive inventory of all practices, or to require ever-increasing management practices for each farm, but rather to obtain an overall picture of what practices are being implemented to address each of the management measures. Dischargers will keep more extensive records on-site as part of their farm plans, which will be available for staff to review during a site visit if requested.

Dischargers will enroll in one of two tiers depending on whether they have completed education and plan development requirements prior to enrollment. Those that have will be in Tier 1 and will only have to submit one additional checklist during the 5-year waiver cycle. Other dischargers who are still working to complete education and plan development requirements will have to report progress as well as submit a practice checklist annually.

Information in the enrollment and subsequent submittals will be used to assess management practice implementation, with the understanding that choosing an effective combination of management practices is a dynamic process.

Element 5: Consequences of failure to achieve program milestones will be reconsideration of the program structure and conditions, consideration of issuance of individual or general waste discharge

requirements and increased focus on enforcement. Annual program review will allow for adjustment of staff effort, reallocation of staff resources and public input; the five year review at the end of the first waiver cycle will allow for revision of conditions as needed, consideration of monitoring program effectiveness, and extensive public review of the entire program. If necessary, the waiver can also be revised or terminated within the next five years.

ENFORCEMENT

Role of Enforcement

Enforcement is only one tool in water quality protection¹, and will be used to ensure that dischargers are meeting performance requirements, that is, enrolling, developing plans, implementing management practices and meeting monitoring and reporting requirements. Staff intend to initiate few if any enforcement actions based solely on water quality data during the first waiver cycle, unless there is clear evidence of flagrant or deliberate impacts to water quality. The focus of enforcement effort will be on those who, after being informed of requirements, fail to enroll and/or fail to make an adequate attempt to meet their education, plan development or monitoring and reporting responsibilities; however, other enforcement actions may be taken as appropriate for specific operations. The Regional Board will utilize progressive enforcement techniques to obtain compliance using the lowest level of enforcement tool (e.g., phone call, Notice of Violation letter) that effectively achieves the program's goals. (See, State Water Resources Control Board's *Water Quality Enforcement Policy*, Section I.D.)

¹ Other tools include education, outreach and funding. In order to develop a successful agricultural program, Regional Board staff intends to focus their efforts on education and outreach so that widespread enforcement actions will become unnecessary. These educational efforts will include providing assistance to entities eligible to apply for grants to fund monitoring or management practice development. Some grants will be available from Regional Board SEP or settlement funds, as well as the State Water Resources Control Board's Agricultural Water Quality Grants Program.

Enforcement Tools and Staffing Resources

Concern and/or skepticism has been expressed about the ability of the Regional Board to implement this conditional waiver program. While it is true that staff resources are limited, sufficient resources will be available for fiscal year 04/05 to devote three to four staff exclusively to performing waiver tasks, including outreach, oversight, data management and enforcement. Staff recognizes that although many in the agricultural community have been and will continue to make a good faith effort to protect water quality, and will do their best to comply with conditions, there are others who believe they will not have to participate. Staff will use all the enforcement options available to ensure that such dischargers are not allowed to violate the law. Tools will include Notices of Violation, which allow dischargers to enroll within a specified time period, Administrative Civil Liability (fines), and Cease and Desist Orders or Time Schedule Orders. In the most egregious cases, the Regional Board can consider seeking judicial enforcement. Where the waiver is not an appropriate regulatory tool for a particular facility, the Regional Board will require a report of waste discharge and issue waste discharge requirements. Cleanup and Abatement Orders may be appropriate where past discharges are susceptible to cleanup. Obviously, four staff cannot develop enforcement actions against hundreds of dischargers immediately if large numbers refuse to comply, but in appropriate cases the Regional Board can assess civil liability retroactively for every day a discharger is out of compliance with the law. If enforcement actions prove necessary, staff can maximize resources by targeting enforcement efforts where they will have the greatest deterrent effect on similar violators.

When the Regional Board does undertake enforcement actions, its discretion in setting the liability amount is limited by statutory factors. The Regional Board must balance these factors: the nature, circumstance, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the discharger, the ability to pay, the effect on

ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters as justice may require. Any discharger subject to an administrative liability action has the right to a public hearing, and may petition the Regional Board's order to the State Board.

Regional Board staff intends to use education and outreach before bringing an enforcement action where a discharger demonstrates that a failure to enroll resulted from lack of information or language barriers. However, every person is presumed to know the law, so it will be imperative that the agricultural community, including Farm Bureaus, watershed coordinators, technical assistance agencies and other entities assist with educational efforts.

Use of Monitoring Data

The intent of the Monitoring and Reporting Program is to provide a tool that the Regional Board and agricultural operations can use to develop the most effective suite of management practices, assess the effectiveness of those practices, track improvements in existing water quality and target areas where more work is needed. Water Code section 13269 requires the monitoring program to demonstrate the effectiveness of waiver conditions. The ultimate goal of the conditional waiver program is to ensure that water quality standards are being met and that irrigated agriculture is not contributing to water quality impairment. The monitoring program is designed to assess this at a reasonable cost and over a relatively long period of time. The program is designed to look for improvement in water quality in waters that have been identified as impacted by agriculture, as well as ensure that existing good water quality in other areas is not degraded by irrigated agriculture. In some watersheds water quality standards will only be achievable when other discharges are also addressed; in others, addressing agricultural impacts will result in attainment of water quality standards. However, this will not happen overnight. Therefore, monitoring data must be used in conjunction with information about

compliance with performance standards in an attempt to fully understand and address the causes of water quality impairment.

Enforcement in Areas Where Groundwater is Already Degraded

As noted above, the agricultural program is intended to address water quality problems over a period of time. Degradation of certain surface and ground waters did not occur overnight, and addressing those problems will not occur overnight, either. In adopting the May 2004 NPS Policy, the State Board recognized that it may take time to achieve water quality requirements. (NPS Policy, p. 14.) This is such a case. An area of particular concern to farm operators is potential liability for existing high nitrate levels in groundwater. The intent of the program during the first five-year cycle is for operators to develop management practices that prevent additional degradation of groundwater and result in gradual improvements. Appropriate practices may include applying less fertilizer where irrigation water is already high in nitrates and other application efficiency measures.

The draft Monitoring and Reporting Program does not require groundwater testing yet. From a practical standpoint, this means that limited information would be available on which the Regional Board could base an enforcement action for groundwater discharges. Where groundwater data is available, Regional Board staff intends to use the information to assess and develop management practices and inform area growers, rather than for enforcement actions. Some isolated cases may warrant a different approach, but those cases would be likely to involve operations that fail to implement management practices. During the first five-year cycle, the focus will be on development of management practices that protect groundwater, rather than on enforcement actions. Where the Regional Board does undertake enforcement actions, it must consider the factors described above in setting the amount of liability.

PROPOSED MONITORING PROGRAM

Water Quality Monitoring

Water quality monitoring to determine the adequacy and effectiveness of the waiver conditions is required by CWC Section 13269. Dischargers will be required to elect a monitoring option during enrollment. They may choose individual monitoring or join a cooperative agricultural water quality monitoring program. The cooperative monitoring program will focus on currently applied agricultural constituents and is designed to provide information on in-stream water quality and to detect trends over time. The cooperative monitoring option is proposed as an efficient way to determine the effectiveness of the waiver program at a reasonable cost, as well as to manage large amounts of monitoring data and ensure data quality.

Cooperative monitoring represents a watershed-based approach to meeting monitoring requirements, but recognizes that most watersheds have mixed land uses and other discharges besides irrigated agriculture. For that reason, the focus of monitoring is on currently used agricultural constituents and toxicity, with provision for follow-up monitoring when problems are identified. Monitoring from on-going programs may be used to satisfy monitoring requirements and further delineate problems. Where necessary, the Regional Board will use its regulatory authority to require water quality information from other potential sources. Fifty sites will be selected throughout the agricultural areas of the region, on main stems of rivers and on tributaries entering the rivers. These sites will be monitored on a regular basis, to see whether implementation of management practices as the result of adoption of the waiver is improving water quality. Sites will be selected in areas where the Regional Board's Central Coast Ambient Monitoring Program and other data have identified water quality problems from nutrients and other constituents that are likely attributable to irrigated agriculture. The cooperative monitoring program allows dischargers to pool resources in order to accomplish required monitoring at a lower cost than individual monitoring.

Broad objectives of the cooperative monitoring program are to:

Short Term Objectives

- Assess status of water quality and associated beneficial uses in agricultural areas

- Identify problem areas associated with agricultural activities, where Basin Plan objectives are not met or where beneficial uses are impaired
- Conduct focused monitoring to further characterize problem areas and to better understand sources of impairment.
- Provide feedback to growers in problem areas; require additional monitoring and reporting as necessary to address problems

Long Term Objective

- Track changes in water quality and beneficial use support over time.
- Verify the adequacy and effectiveness of the waiver's conditions.

The proposed draft Monitoring and Reporting Program R3-2004-0117 is included as Attachment 4. Estimated costs under various monitoring scenarios are included in Attachment 5. Attachment 5 represents staff's estimates of what participation in a cooperative monitoring plan might cost; however, the actual costs for participating in a cooperative monitoring program are within the sole control of the participants. Grant funding can significantly reduce these costs, if the participants choose to apply for such grants. The Regional Board recognizes that this is a new, although not unprecedented, approach to satisfying the need for water quality information. In other parts of the state, dischargers have banded together and pooled resources to improve data quality, provide a broader perspective of water quality condition, and lower individual costs. Staff recommends that the program be set up by a nonprofit organization selected or formed by the agricultural community that has the ability to apply for newly available Agricultural Water Quality Grant Program funds. These funds allow nonprofit organizations and local public agencies to receive funds for monitoring and implementation of projects targeting irrigated agriculture and waiver compliance. These funds, along with other potential funding sources such as the PG&E and Guadalupe settlement funds, would greatly leverage growers' resources and allow establishment of the cooperative monitoring program for one or two years at a minimal cost to growers. This would allow additional time to formulate a cost allocation process and evaluate the cooperative monitoring program.

PROGRAM IMPLEMENTATION RESOURCES

Successfully implementing a program with 2500 potential enrollees will necessitate reordering priorities and redirecting staff effort from lower priority tasks. Some tasks that have been completed in the past will no longer be done, or will not be done to the same level as before. Staff estimates that four full time staff as well as student help and contract assistance for database development will be needed for fiscal year 04/05 in order to complete the following tasks:

Data Management

In order to ensure that all owners and operators of irrigated lands are aware of the new conditional waiver, a comprehensive mailing list will be created using both pesticide use reporting and county assessors' information. In addition, a database will be developed and linked to the Regional Board's website to enable on-line enrollment. The database will track submittals (Notice of Intent, management practice checklists, annual reports, monitoring data, etc.) Hardcopy data will also be entered into the database. Staff has developed a prototype of the database and is pursuing contract resources with State Board and USEPA. This effort may fit well with a statewide effort to track NPS Management Measures.

Outreach and Education

During the six months between adoption of the Conditional Waiver and the enrollment deadline, staff effort will be focused on ensuring that all potential enrollees are informed about upcoming requirements. Staff will distribute information through individual mailings, through the Regional Board's website, through coordination with Agricultural Commissioners, Resource Conservation Districts, University of California Cooperative Extension and other partners, and through presentations at industry meetings and short courses.

Oversight and Enforcement

Once enrollment has begun, staff effort will shift to enrollment review, ensuring compliance through reviewing submittals, notifications, site visits, and, where necessary, initiating enforcement activities. Although the primary intent of the program is to ensure implementation of water quality protection practices by agriculture, compliance with all conditions of the waiver are important and staff will

work to ensure that all dischargers are enrolled, receiving education, developing farm plans and implementing practices.

In the short term, staffing resources will come from 1.2 PY (person-year) of existing NPS staff resources, 0.6 PY of Watershed Management Initiative (WMI) resources, 1.2 PY of BCP 81 resources and additional grant/contracting resources devoted exclusively to Agricultural Waiver implementation for fiscal year 04/05. NPS and WMI staff resources currently directed more generally to outreach and education and watershed management will be focused on waiver compliance activities. TMDL implementation activities funded by BCP 81 will focus on TMDLs that have agriculture as a primary source and staff will work to ensure compliance with waiver conditions. In addition, staff is proposing that a new position be added that will be devoted entirely to waiver program implementation.

In the longer term, additional resources may become available once a waiver fee schedule is adopted by the State Water Resources Control Board. Staff suggests that at least 5 of the 22 PYs being suggested for waiver implementation statewide be devoted to implementing Region 3's agricultural waiver program. Such additional resources will further ensure the long-term success of the waiver program.

REGIONAL BOARD SUPPORT FOR MANAGEMENT PRACTICE IMPLEMENTATION AND AGRICULTURAL MONITORING

Staff proposes several ways that the Regional Board can support agricultural compliance with the Conditional Waiver:

Grant Funds

At least 75% of all grant proposal recommendations for the next 3-5 fiscal years should be directly related to implementing management practices or monitoring activities required by the Conditional Waiver. Although all fund sources are not amenable to such an approach, the Regional Board should prioritize agricultural projects that are directly related to the Conditional Waiver over other types of projects, however desirable. Contract management requires staff time, which is very limited. Staff currently participates on the

Agricultural Grants Workgroup, which is developing guidelines and a Request for Proposals for agricultural projects funded by Proposition 40 and 50. Projects that assist farmers in meeting waiver requirements, including monitoring, will be prioritized.

Settlement Funds

Settlement funds are another resource that could potentially be used to support establishment of the Cooperative Monitoring Program. Existing PG&E Settlement Funds that are available to support monitoring of agricultural practices in the lower Salinas and Elkhorn Slough areas, and Guadalupe settlement funds that are available in the southern part of the Region could support monitoring at sites in those respective areas that are part of the waiver monitoring network. Settlement funds may also be used as match to leverage upcoming Agricultural Water Quality Grant program funds that provide for implementation and monitoring in agricultural areas, thus reducing initial costs of starting up the cooperative monitoring program. Under the grant program, management practice implementation by farmers to implement the waiver can qualify as match for funds to implement the monitoring program.

RESPONSE TO COMMENTS

A large number of comment letters were received in response to the workshops and the Initial Study and Negative Declaration prepared under CEQA. Staff's response to comments received on the CEQA documents and the proposed Conditional Waiver and proposed Monitoring and Reporting Program are included as Attachment 6.

ATTACHMENTS

1. Revised Initial Study and Negative Declaration for Conditional Waiver of Waste Discharges from Irrigated Lands
2. Resolution R3-2004-0118 Adopting the Negative Declaration
3. Order R3-2004-0117, Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands
4. Monitoring and Reporting Program R3-2004-0117
5. Anticipated cooperative monitoring costs under four scenarios
6. Response to comments

7. Comment letters

RECOMMENDATION

Staff recommends that the Regional Board approve Resolution R3-2004-0118 adopting the Negative Declaration; adopt Order R3-2004-0117, Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands; and adopt Monitoring and Reporting Program R3-2004-0117.

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EXHIBIT D



California Regional Water Quality Control Board Central Coast Region



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Arnold Schwarzenegger
Governor

December 12, 2008

Dear Agricultural Advisory Panel Participant:

The Central Coast Water Board invites you to participate in the renewal of the *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands* (Irrigated Ag Order). The existing Order expires in July 2009 and must be renewed, revised or replaced. When we bring the Irrigated Ag Order to the Water Board for consideration in 2009, I will propose specific revisions to clarify existing requirements, and new requirements where necessary to directly address and resolve the major water quality issues associated with irrigated agriculture in our Region. These revisions will include time schedules to achieve compliance, milestones, and compliance verification monitoring to address each issue (surface and groundwater pollution, erosion and sedimentation, and habitat degradation). This letter briefly summarizes the main water quality issues we will address, and requests your participation in a series of meetings with us to discuss the Irrigated Ag Order revisions I will propose to the Water Board in July 2009.

The requirements, time schedules, milestones, and compliance verification monitoring I will include in the draft Irrigated Ag Order are similar to the requirements we include in other permits, waivers, Total Maximum Daily Load Orders (TMDLs), Stormwater Management Plans, Timber Harvest Plans, and other regulatory tools. This approach is also necessary to comply with the State and Regional Boards' 2004 Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program. Our approach is based on this Policy, so I ask that you read the Policy prior to our Ag Advisory Panel meetings, especially the section beginning on page 11, titled "The Key Elements of an NPS Pollution Control Implementation Program." You can review the Policy on-line at:

http://www.waterboards.ca.gov/water_issues/programs/nps/docs/oalfinalcopy052604.doc

Clarifying Water Quality Requirements in the Irrigated Ag Order

The draft Irrigated Ag Order will clarify how growers and property owners will comply with existing requirements, and will include new requirements where necessary to achieve compliance. The Irrigated Ag Order will be revised to require growers and property owners to demonstrate compliance with the following conditions per defined schedules:

- Eliminate toxic discharges of agricultural pesticides to surface waters and groundwater
- Reduce nutrient discharges to surface waters to meet nutrient standards
- Reduce nutrient discharges to groundwater to meet groundwater standards
- Minimize sediment discharges from agriculture lands
- Protect aquatic habitat (riparian areas and wetlands) and their buffer zones

Defining specific requirements, time schedules, milestones, and verification monitoring in the Irrigated Ag Order for each issue above ensures that the regulated community understands its obligations to meet discharge requirements and its role in helping to achieve water quality objectives and protect resources, while allowing reasonable time to reach full compliance. We

California Environmental Protection Agency

understand that these requirements will not be achieved in a short time frame. The purpose of defining schedules and verification monitoring is to ensure that reasonable progress is being made towards compliance and that growers understand their obligation to comply with water quality requirements.

Water Quality Issues

Below is a brief summary of the major water quality issues associated with irrigated agriculture in our Region, based on data from our office's Central Coast Ambient Monitoring Program, the Bay Protection and Toxic Cleanup Program, the agricultural Cooperative Monitoring Program, and extensive research done in several of our watersheds. We recognize the effort the Cooperative Monitoring Program has made to ensure farmers are aware of these water quality problems. Some growers are changing practices in response to information provided by the Cooperative Monitoring Program, outreach coordinators, and technical assistance providers, and we appreciate these efforts. Other growers are not making progress, and severe water quality problems continue. The high levels of nitrate and significant amount of toxicity we see at many sites, along with habitat degradation and the documented removal of vegetation that can protect water quality, make it imperative that we aggressively address these problems.

Pesticide Toxicity

The Cooperative Monitoring Program has found the pesticides chlorpyrifos and diazinon at concentrations that exceed water quality objectives, at concentrations known to cause toxicity, and these data and data from several other researchers indicate that these two chemicals are responsible for much of the widespread water toxicity found in watersheds where agriculture is the dominant land use. In addition, the Cooperative Monitoring Program has documented widespread sediment toxicity at many of its sites. Although the CMP has yet to follow up on this problem with chemical monitoring, related research in the area has pointed to pyrethroid pesticides, as well as chlorpyrifos, as primary sources of toxicity. There are data showing high toxicity in water and sediment from agriculture-dominated surface waters in our region, and concurrent impacts on benthic macroinvertebrate communities. The Central Coast Water Quality Control Plan (Basin Plan) specifically prohibits discharges of waste containing substances that cause or contribute to toxicity or which produce detrimental physiological effects in aquatic life.

Nutrients/Nitrate

Groundwater and surface water salt and nitrate pollution is prevalent in some agricultural areas within our region. The Basin Plan prohibits discharges that could result in groundwater or surface water nitrate concentrations above 45 milligrams per liter (mg/L) as nitrate, or 10 mg/L as nitrogen. Thirty out of the 50 Cooperative Monitoring sites consistently exceed water quality standards for nitrate. In addition, constituents such as orthophosphate consistently exceed recommended levels in some areas. Nitrate levels necessary to protect aquatic life are substantially less than the limits noted above, which further illustrates the magnitude of the problem.

Nutrient discharges may contribute to algal blooms in both fresh and saltwater environments. These nutrient induced algal blooms are a major impact to aquatic life over large geographic areas, and are becoming more intense and more prevalent in some areas.

Sediment

Sediment eroding off bare ditch banks and farm fields contribute directly to water quality impairment, through the sediment itself and by carrying attached pesticides and other constituents. Minimizing sediment movement from farm fields and ditches is a critical requirement for protecting water quality.

Habitat Degradation

Land use management activities have significantly degraded aquatic habitat (riparian areas and wetlands) throughout the Central Coast and California. For example, over 90% of wetlands have been lost in California over the past 100 years. Healthy riparian habitat and wetlands, including buffer zones, are critical to protect the beneficial uses of our waters. They help to reduce flood impacts by helping to attenuate peak flood flows, recharge groundwater, stabilize streambanks, provide critical habitat for a wide diversity of wildlife, and filter nutrients and pathogens, among many other benefits. The Basin Plan requires the protection of riparian habitat and the maintenance of adequate buffer zones. The food safety issue has resulted in some growers removing riparian habitat and buffer zones on and around irrigated agricultural fields, which is a direct violation of the Basin Plan.

Verifying Compliance

In addition to the Cooperative Monitoring Program, we will also include a tiered compliance verification monitoring program in the Irrigated Ag Order. The tiered monitoring program will range from minimal monitoring requirements for growers who are already in compliance or who are making significant progress in reducing pollutant discharges, to comprehensive monitoring for growers who are not in compliance or not making progress toward compliance with discharge requirements. We will work with the Panel to develop reporting tools and a tiered structure that focuses on threats to water quality, known water quality problems, and other factors. This approach is similar to the tiered monitoring program we developed for timber harvesting and the scaled monitoring efforts we require for other dischargers. Verification monitoring may incorporate several elements, including management practice reporting, photomonitoring, and individual water quality testing.

Proposed Renewal Process

We request the help of the Agricultural Advisory Panel in developing appropriate milestones, timetables, and verification monitoring requirements to reach the required goals, all of which will be incorporated in our recommendations to the Central Coast Water Board for an improved Irrigated Ag Order.

We also request the help of the Panel in making other improvements to the Irrigated Ag program. Based on prior input received from the Panel and from Water Board staff and management, topics for discussion include additional education requirements, outreach strategies, farm planning and assessment, enforcement strategies, and monitoring program

modifications. Panel members may wish to add other topics. We value your insight and we need your assistance in developing practical methods to achieve our mutual goals.

As part of the Irrigated Ag Order renewal process, Water Board staff will work with the Panel to develop recommendations to staff. The Panel will develop ground rules for working together and Panel recommendations will be based on the consensus of Panel members. Staff may provide draft language or work with the panel to develop language. I will consider all recommendations from the Panel.

Proposed Schedule of Meetings

We propose to hold approximately five meetings of the Panel between December 2008 and April 2009. The Panel may wish to recommend additional meetings or the formation of subcommittees to work on specific topics as a way to make the best use of the Panel's time.

Panel Membership

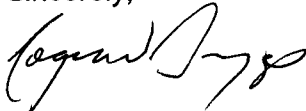
Attached is a table of participants and their affiliations. Please review the list for errors and let us know if corrections are needed. In some cases we have included alternates. We believe the process will be best if one representative attends all meetings but this may not always be possible. We have attempted to contact as many interested parties as possible. Some of those contacted felt that their interests were adequately represented by the panel and asked only to be kept informed. We have also attempted to limit the size of the group, in order to facilitate discussion and exchange of views, yet include as broad a representation as possible. Upon reviewing the list, if you feel that some important representation is missing, please contact us.

We will hold the initial Panel meeting at the Central Coast Water Board offices in San Luis Obispo on December 18, 2008, from 10 am until 3 pm. Staff will provide an agenda and meeting materials prior to the meeting.

The first five years of the Irrigated Ag Program have been challenging but also rewarding. The support of the agricultural and environmental communities in developing the program has been a vital part of the progress we have made to date. We thank you for your willingness to continue working on these important issues and look forward to working with you to make additional progress in improving water quality.

If you have questions, please contact Alison Jones of my staff, at (805) 542-4646.

Sincerely,



Roger W. Briggs
Executive Officer

S:\NPS\Agriculture Waiver\Program Management\Ag Waiver Renewal\Letter of Invitation 12-08 FINAL

EXHIBIT E



December 2, 2009

Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

RE: Stakeholder Process for Renewing the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands

Dear Board Members:

This letter describes our organizations' experience with the existing Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Ag Order). In particular, we will discuss what has and what has not worked with the existing Ag Order, and how the Ag Order has served to improve water quality in the Central Coast Region. This letter will also address staff's proposed Public Input Process and Schedule.

The Environmental Defense Center (EDC) is a non-profit public interest law firm that represents community organizations in environmental matters affecting California's south central coast. EDC protects and enhances the environment through education, advocacy and legal action.

Monterey Coastkeeper (MCK) protects the water, watersheds and coastal ocean for the benefit of wildlife and human populations alike. MCK serves Monterey and Santa Cruz counties including the northern Salinas and Pajaro river basins.

Santa Barbara Channelkeeper (SBCK) is a non-profit environmental organization dedicated to protecting and restoring the Santa Barbara Channel and its watersheds through citizen action, education, field work and enforcement. Channelkeeper has nearly ten years of experience in conducting citizen water quality monitoring activities in agricultural watersheds.

EDC, SBCK and MCK all participated in the original stakeholder process which informed the existing Ag Order, and we have participated in the recent stakeholder process convened by your staff to discuss the next iteration of the Ag Order.

Environmental Defense Center
906 Garden Street
Santa Barbara, CA 93101

Monterey Coastkeeper
475 Washington St., Suite A
Monterey, CA 93940

Santa Barbara Channelkeeper
714 Bond Avenue
Santa Barbara, CA 93103

I. What Worked In The Existing Ag Order?

Perhaps the greatest success of the existing Ag Order has been educating the agricultural community about how agricultural operations contribute to water quality impacts.

The work done by Preservation, Inc. has also been invaluable. The Cooperative Monitoring Program has identified impairments and shown trends in water quality.

While it may be difficult to quantify actual improvements in water quality as a result of the existing Ag Order, there is evidence that better farm management practices have alleviated some agricultural impacts.

II. What Did Not Work In The Existing Ag Order?

While the existing Ag Order has demonstrated success, we believe that certain areas still need improvement.

Enforcement

A serious problem under the existing Ag Order is a lack of adequate enforcement on both enrolled and non-enrolled growers. Currently, there exists no database of growers and the actual plots they farm. Without such a database, it is impossible to enforce enrollment.

Lack of water quality standards to determine compliance – The current program requires that Best Management Practices (BMPs) be implemented on-site to minimize the quantity of and improve the quality of agricultural discharges. BMP implementation, however, varies from site to site by necessity depending on site-specific concerns. As a result, without defined water quality standards for discharges to surface and groundwater, it is impossible to determine whether or not agricultural operations are contributing to exceedences of basin plan objectives in surface water bodies.

Inadequate attention to stormwater discharges – The current program lacks standards and mechanisms pertaining to stormwater discharges. Section 40 of the existing Ag Order states that “the goal of these combined practices should be to minimize stormwater runoff for the first half-inch of rain during each storm, and to reduce runoff for the first one-and-a-half inches of rain during each storm.” The Ag Order, however, does not define the difference between the words ‘minimize’ and ‘reduce’ and describes no method to determine whether compliance is being achieved. Crops such as strawberries are especially problematic, as they are mostly covered with impervious plastic during the rainy season which increases water volumes and velocities running through furrows and ditches.

There is particularly a gap in the current program when it comes to stormwater discharges from fallow agricultural fields. BMPs are frequently not implemented when agricultural fields are not in operation. However, from a stormwater quality perspective, fallow agricultural fields present a similar risk to surface water quality as would a large construction site. The lack of specific language describing requirements for stormwater management of fallow fields is a significant gap in the existing program.

Inadequate protection of aquatic habitats -- The existing Ag Order expresses no vision for maintenance of vegetated buffer areas between farm fields and aquatic habits. With the current focus on 'food safety' there are documented cases of removal of riparian vegetation. The riparian corridor along our creeks and rivers is the ultimate vegetated buffer before runoff enters our open waters. These riparian areas offer many public benefits including improvement of water quality.

Water Quality Monitoring

Lack of individual discharge monitoring - While the Cooperative Monitoring Program (CMP) has produced useful data, a critical weakness in the existing Ag Order is a lack of individual discharge monitoring. The existing Order is directed at improving the quality and reducing the quantity of agricultural discharges, however, agricultural discharges are not regularly monitored as a part of the CMP. The ambient data produced through the CMP does allow the Regional Board and stakeholders to identify general long-term water quality trends, however it does not allow us to determine whether the current program is successfully improving water quality.

To date, the only assertions¹ based on CMP data that the current program is producing water quality benefits have been based upon a statistically significant downward trend in summer stream flows at a selection of CMP monitoring sites. This assertion, however, fails to acknowledge that seasonal fluctuations in stream flow are also directly and heavily influenced by a number of other factors such as trends in annual precipitation, pumping, and the use of water diversions. Without discharge monitoring data, it will remain impossible to attribute such changes or improvements to the existing waiver program. While the authors of this letter are confident that improvements have occurred throughout the region, the current monitoring program fails to provide information allowing us to verify and quantify those improvements.

Inadequate dissolved oxygen measurements - The CMP currently collects dissolved oxygen measurements in the middle of the day. Due to diurnal fluctuations in dissolved oxygen, measurements collected in the middle of the day do not accurately diagnose potential anoxic conditions and are actually misleading. In order for such measurements to be valid they must occur during periods when dissolved oxygen can be expected to be at a minimum, usually before dawn. Ideally, such measurements would be collected continuously throughout the day to capture the extent of diurnal fluctuation.

¹ October 23, 2009. Joint Letter to Mr. Jeffery Young from some members of the Ag Advisory Panel.

SBCK has conducted numerous studies² that demonstrate the importance of timing in dissolved oxygen monitoring (Figure 1). Since nutrient impairments are one of the major issues facing water bodies throughout our region, the monitoring program needs to collect information that will determine whether or not eutrophication from nutrient enrichment is occurring. This is a major flaw in the current monitoring program.

Lack of groundwater monitoring data – There is a widespread gap in the availability of groundwater quality data throughout the region. Groundwater is directly linked to surface water quality through surface-to-groundwater interactions and through tail water discharges. Without groundwater data, the Regional Board and stakeholders are unable to evaluate whether the current program is improving groundwater quality over time. Without groundwater quality data, it is also impossible for growers to make certain informed decisions regarding nutrient management. As the Regional Board heard at its July meeting in Watsonville, entire communities can no longer use their well water due to nutrient and chemical pollution. Groundwater contamination is a critical yet neglected issue.

Reporting

Similarly, the water quality data that is received by Central Coast Region staff is not always complete or available in a useful format. Part of this problem stems from a lack of on-farm data. The information also has not been made generally available to the public. This has affected the Ag Order's enforcement regime by precluding other organizations with expertise in agriculture, water quality and/or environmental protection from participating in the regulatory program.

Enrollment

Finally, while enrollment numbers are high, there are significant numbers of growers and operations that are not enrolled in the existing Ag Order. For the program to be ultimately successful there must be a higher rate of participation. It is far too easy for a small number of bad actors to spoil an otherwise productive regulatory program. It is inaccurate to state that any percentage of the dischargers or any percentage of the land is enrolled. The reality is that we don't really know. Without better data it is impossible to identify the gaps.

Little or no work has been done to determine what percentage of enrolled farms have completed their educational requirements and/or are implementing good practices. Submission of the farm plan is not required, only an annual checklist is submitted.

Major crops, such as strawberries, are apparently regulated contrary to the existing Ag Order. Apparently the coolers enroll, and neither the property owner nor

² <http://www.stream-team.org/venturaalgae.html>.

grower are required to enroll or participate. We have no idea if the cooler exercises any control over beneficial water quality control practices on the ground.

III. Public Input Process and Schedule

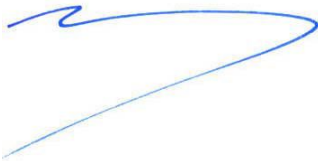
We support the schedule that has been proposed by staff and attached to your Board Letter as Attachment 3. We are, however, concerned that the California Environmental Quality Act (CEQA) process may take longer than suggested. Environmental review under CEQA is an important and necessary component of your decision-making process and should inform the new Ag Order. It is important that the process not be drawn out too long. We initially expected a new Ag Order to be promulgated in July of this year, and the Board should not wait too much longer to address the above concerns that we have raised about the existing Ag Order. We do support a thorough and open process that allows time between iterations of the new order. We would prefer to see fewer iterations with more time given to review each new version.

Conclusion

We appreciate this opportunity to participate in the Ag Order renewal process, and we have appreciated being part of the (now defunct) advisory panel. The Central Coast Region and its agriculturalist constituents should be proud of the work that has been done on and under the existing Ag Order so far. There is certainly room for improvement, and we are confident that our concerns will be addressed in the new Ag Order being prepared by your staff.

If you have any questions, please do not hesitate to contact any of our organizations.

Sincerely,



Nathan G. Alley
Staff Attorney, Environmental Defense Center



Ben Pitterle
Santa Barbara Channelkeeper

Regional Water Quality Control Board, Central Coast Region

December 2, 2009

Page 6 of 7

A handwritten signature in blue ink, appearing to read 'S. Shimek', is positioned above the printed name.

Steve Shimek

Executive Director, Monterey Coastkeeper

Figure 1. Ventura River diel dissolved oxygen and pH measurements collected from April through September of 2008. Note differences in dissolved oxygen concentration of up to 11 mg/L between pre-dawn and afternoon measurements from anoxic (< 5mg/L) to super-saturated conditions.

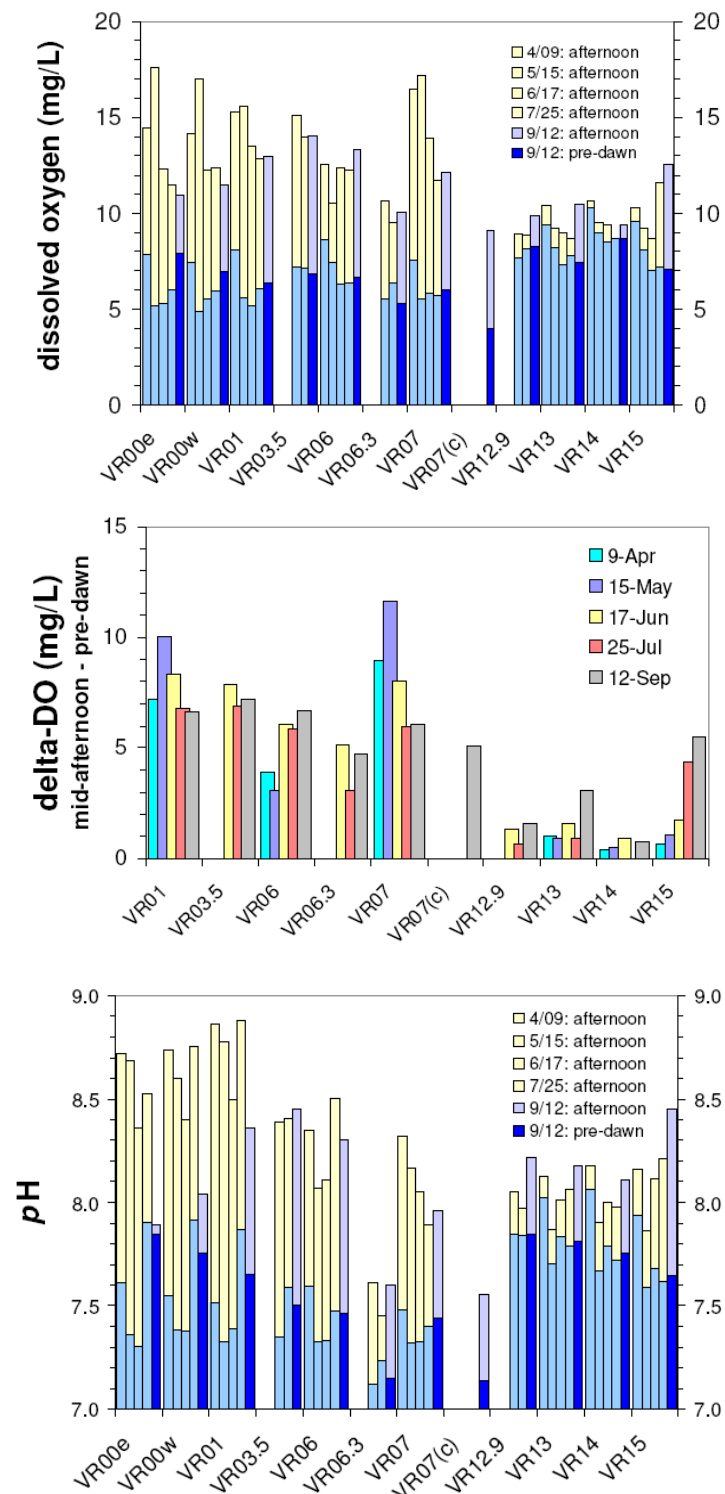


EXHIBIT F

Attachment 3

Preliminary Draft Report Staff Recommendations For Agricultural Order

PRELIMINARY DRAFT AGRICULTURAL ORDER NO. R3-2010-00XX

CONDITIONAL WAIVER FOR IRRIGATED AGRICULTURE OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS

| | |
|--|----|
| GENERAL FINDINGS | 3 |
| I. BACKGROUND AND PURPOSE | 3 |
| Agricultural and Water Resources in the Central Coast Region | 3 |
| II. SCOPE OF ORDER NO. R3-2010-00XX | 5 |
| III. LEGAL AND REGULATORY CONSIDERATIONS..... | 6 |
| IV. RATIONALE FOR THIS ORDER | 9 |
| V. IMPACTS TO WATER QUALITY FROM AGRICULTURAL DISCHARGES..... | 11 |
| Impacts to Surface Water | 11 |
| Impacts to Surface Water – Nutrients | 11 |
| Impacts to Surface Water – Toxicity | 13 |
| Impacts to Surface Water – Turbidity and Temperature | 14 |
| Impacts to the Marine Environment | 15 |
| Impacts to Groundwater – Drinking Water | 15 |
| Impacts to Groundwater – Human Health..... | 16 |
| Impacts to Groundwater – Nitrate and Salts | 18 |
| Impacts to Aquatic Habitat..... | 19 |
| VI. AGRICULTURAL REGULATORY PROGRAM..... | 22 |
| Agricultural Regulatory Program Implementation | 22 |
| Management Practice Implementation..... | 23 |
| VII. PUBLIC INPUT AND STAKEHOLDER PROCESS | 26 |
| VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) | 27 |
| ATTACHMENT A | 29 |
| APPLICABLE WATER QUALITY CONTROL PLANS AND DEFINITIONS | 29 |
| ATTACHMENT B | 51 |
| TERMS AND CONDITIONS | 51 |
| Part A. General Provisions..... | 51 |
| Part B. Discharge Prohibitions | 55 |
| Part C. Technical Reports..... | 56 |
| Part D. Water Quality Standards..... | 61 |
| Part E. Management Practice Implementation Requirements | 61 |
| Part F. Groundwater Protection Requirements <NEW>..... | 68 |
| Part G. Aquatic Habitat Protection Requirements <NEW> | 69 |
| Part H. Time Schedule..... | 72 |

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GENERAL FINDINGS

The California Regional Water Quality Control Board, Central Coast Region finds that:

I. BACKGROUND AND PURPOSE

1. The State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (Regional Water Boards) are the principal state agencies with primary responsibility for the coordination and control of water quality pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act, codified in Water Code Division 7). The legislature, in the Porter-Cologne Act, directed the Water Board to exercise its full power and jurisdiction to protect the quality of the waters in the State from degradation, considering precipitation, topography, population, recreation, agriculture, industry, and economic development. (Water Code § 13000)
2. On July 9, 2004, the Central Coast Regional Water Quality Control Board (Central Coast Water Board) adopted Resolution No. R3-2004-0117 establishing a *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands* (2004 Conditional Waiver). In the 2004 Conditional Waiver, the Central Coast Water Board found that the discharge of waste from irrigated lands has degraded and polluted the waters of the State and of the United States within the Central Coast Region, has impaired the beneficial uses, and has caused nuisance. Since the adoption of the 2004 Conditional Waiver, the Central Coast Water Board has documented that discharges of waste from irrigated lands continue to degrade water quality and impair beneficial uses. Such wastes include nutrients, toxic compounds, and other constituents found in fertilizers, pesticides, and sediment. Activities that have resulted in the discharges of waste that degrade water quality and impair beneficial uses include farm management practices and removal and degradation of riparian and wetland habitat. The 2004 Conditional Waiver expired on July 9, 2009 and the Central Coast Water Board renewed it for a term of one year until July 10, 2010. This Order No. R3-2010-00XX (Order) revises the 2004 Conditional Waiver as set forth herein.
3. Water Code Section 13260(a) requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the State, other than into a community sewer system, shall file with the appropriate Regional Board a report of waste discharge (ROWD) containing such information and data as may be required by the Central Coast Water Board, unless the Central Coast Water Board waives such requirement.

4. Water Code Section 13263 requires the Central Coast Water Board to prescribe waste discharge requirements (WDRs), or waive WDRs, for the discharge. The WDRs must implement relevant water quality control plans and the Water Code.
5. Water Code Section 13269(a) provides that the Central Coast Water Board may waive the requirements to submit a ROWD and to obtain WDRs for a specific discharge or specific type of discharge, if the Central Coast Water Board determines that the waiver is consistent with any applicable water quality control plan and such waiver is in the public interest, provided that any such waiver of WDRs is conditional, includes monitoring requirements unless waived, does not exceed five years in duration, and may be terminated at any time by the Central Coast Water Board.
6. As authorized by Water Code Section 13269, this Order conditionally waives the requirement to file ROWDs and obtain WDRs for Dischargers who comply with the terms of this Order.
7. This Order directly addresses discharges of waste¹ from irrigated lands by requiring Dischargers to comply with the terms and conditions set forth in Attachment B, which is hereby incorporated into this Order, including compliance schedules to:
 - a. Reduce nutrient discharges to surface waters and groundwater to meet applicable nutrient and biostimulatory water quality standards, and maintain existing high quality water;
 - b. Reduce toxic discharges of agricultural pesticides to surface waters and groundwater to meet applicable toxicity water quality standards, and maintain existing high quality water;
 - c. Reduce sediment discharges from agriculture lands to meet applicable standards, including turbidity and sediment water quality standards, and maintain existing high quality water;
 - d. Protect aquatic habitat (riparian areas and wetlands) and meet applicable water quality standards including, but not limited to, temperature, turbidity, and dissolved oxygen, and maintain existing high quality water;
8. The Central Coast Water Board recognizes that Dischargers may not achieve immediate compliance with all requirements. Thus, this Order provides reasonable schedules for Dischargers to reach full compliance over many years by implementing management measures and monitoring and reporting programs that demonstrate and verify measurable progress annually. This Order includes specific dates to achieve water quality objectives in irrigation runoff and discharge to groundwater, and anticipates timeframes beyond the term of this Order to achieve water quality objectives in receiving water.

¹ This Order regulates discharge of “waste” as defined in Water Code section 13050 and “pollutants” as defined in the Clean Water Act. For simplicity, the term “waste” or “wastes” is used throughout. The term “waste” is very broad and includes “pollutants” as defined in the Clean Water Act.

9. The Central Coast Water Board is focusing on the highest water quality priorities and maximizing water quality protection to ensure the long-term reliability and availability of water resources of sufficient supply and quality for all present and future beneficial uses, including drinking water and aquatic life. Given the magnitude and severity of water quality impairment and impacts to beneficial uses caused by irrigated agriculture, and the significant cost to the public, the Central Coast Water Board finds it is reasonable and necessary to require specific actions to protect water quality.
10. Compliance with the 2004 Conditional Waiver has resulted in significant achievements, including a high percentage of Discharger enrollment in the 2004 Conditional Waiver, implementation and participation in education and outreach programs, Discharger development and implementation of Farm Water Quality Management Plans (Farm Plans), and implementation of cooperative water quality monitoring at the watershed scale. The 2004 Conditional Waiver did not emphasize compliance with water quality standards and did not include monitoring to measure and assure restoration of water quality and protection of beneficial uses.
11. This Order regulates discharges from irrigated lands to ensure that such discharges do not cause or contribute to the exceedance of any Regional, State, or Federal numeric or narrative water quality standard in waters of the State and of the United States.
12. According to Water Code Section 13263(g), the discharge of waste to waters of the State is a privilege, not a right. It is the responsibility of dischargers of waste from irrigated lands to comply with the Water Code by seeking WDRs or by complying with a waiver of WDRs. This Order waiving the requirement to submit a ROWD and the requirement to obtain WDRs provides a mechanism for dischargers of waste from irrigated lands to meet their responsibility to comply with the Water Code and to prevent degradation of waters of the State, prevent nuisance, and to protect the beneficial uses. Dischargers are responsible for the quality of surface waters and ground waters that have received discharges of waste from their irrigated lands.

Agricultural and Water Resources in the Central Coast Region

13. The Central Coast Region has more than 17,000 miles of surface waters (linear streams/rivers) and approximately 4000 square miles of groundwater basins.
14. In the Central Coast Region, nearly all agricultural, municipal, industrial, and domestic water supply comes from groundwater. Groundwater supplies approximately 90 percent of the drinking water on the Central Coast. Currently, more than 700 municipal public supply wells in the Central Coast Region provide drinking water served to the public by cities, counties, and local water agencies. In addition, based on 1990 census data, there are more than 40,000 permitted private wells, most providing domestic drinking water to rural households and communities

from shallow sources. The number of private domestic has likely significantly increased in the past 20 years.

15. In the Salinas, Pajaro, and Santa Maria groundwater basins, agriculture accounts for approximately 80 to 90 percent of groundwater pumping.
16. The Central Coast Region supports some of the most significant biodiversity of any temperate region in the world and is home to the last remaining population of the California Sea Otter, three sub-species of threatened or endangered Steelhead (*Oncorhynchus mykiss*) and one sub-species of endangered Coho Salmon (*Oncorhynchus kisutch*). The endangered marsh sandwort (*Arenaria paludicola*), Gambel's watercress (*Nasturtium rorippa gambelii*), California least tern (*Sterna antillarum browni*), and threatened red-legged frog (*Rana aurora*) are present in the region.
17. Several watersheds drain into Monterey Bay National Marine Sanctuary, one of the largest marine sanctuaries in the world. Elkhorn Slough, is one of the largest remaining tidal wetlands in the United States and one of the National Oceanic and Atmospheric Administration (NOAA) designated National Estuarine Research Reserves. The southern portion includes the Morro Bay National Estuary and extensive salt marsh habitat.
18. The two endangered plants, marsh sandwort and Gambel's watercress are critically imperiled and their survival depends upon the health of the Oso Flaco watershed. The last remaining known population of marsh sandwort and one of the last two remaining known populations of Gambel's watercress occur in Oso Flaco Lake.
19. The Central Coast of California is one of the most productive and profitable agricultural regions in the nation, reflecting a gross production value of more than six billion dollars in 2008, contributing more than 14 percent of California's agricultural economy. The region produces many high value specialty crops including lettuce, strawberries, raspberries, artichokes, asparagus, broccoli, carrots, cauliflower, celery, fresh herbs, mushrooms, onions, peas, spinach, wine grapes, tree fruit and nuts. An adequate water supply of sufficient quality is critical to supporting the agricultural industry on the Central Coast.
20. The Central Coast Region has approximately 435,000 acres of irrigated land and more than 3000 agricultural operations. Substantial empirical data show that agricultural discharges and land use practices are adversely affecting the quality of waters of the State and degrading designated beneficial uses. Water Code Section 13050 defines waters of the State to be any surface water or groundwater within the boundaries of the State.
21. Existing and potential water quality impairment from agricultural discharges takes on added significance and urgency, given the impacts on public health, limited

sources of drinking water supplies and proximity of the region's agricultural lands to critical habitat for species of concern.

II. SCOPE OF ORDER NO. R3-2010-00XX

Irrigated Lands and Agricultural Discharges Regulated Under this Order

22. This Order regulates discharges of waste from irrigated lands where water is applied for producing commercial crops and includes, but is not limited to, land planted to row, vineyard, field and tree crops. This Order also regulates discharges of waste from commercial nurseries, nursery stock production and greenhouse operations with soil floors that do not have point-source type discharges, and are not currently operating under individual WDRs. Lands that are planted to commercial crops that are not yet marketable, such as vineyards and tree crops, must also obtain coverage under this Order.
23. Discharges from irrigated lands regulated by this Order include discharges of waste to surface water and groundwater, such as irrigation return flows, tailwater, drainage water, subsurface drainage generated by irrigating crop land or by installing and operating drainage systems to lower the water table below irrigated lands (tile drains), stormwater runoff flowing from irrigated lands, stormwater runoff conveyed in channels or canals resulting from the discharge from irrigated lands, runoff resulting from frost control, and/or operational spills. These discharges can contain wastes that could affect the quality of waters of the State and degrade beneficial uses.

Dischargers Regulated Under this Order

24. This Order regulates both landowners and operators (Dischargers) of irrigated lands on or from which there are discharges of waste that could affect the quality of any surface water or groundwater. Dischargers are responsible for complying with the requirements of this Order. The Central Coast Water Board will hold both the landowner and the operator liable for noncompliance with this Order.
25. Dischargers must submit to the Central Coast Water Board a completed Notice of Intent (NOI) to comply with the conditions of this Order and receive a Notice of Enrollment from the Executive Officer of the Central Coast Water Board to be considered in compliance with the Water Code.
26. Landowners and operators of irrigated lands who obtain a pesticide use permit from a local County Agricultural Commissioner may have a discharge of waste that could affect surface water and groundwater and therefore must submit to the Central Coast Water Board a completed NOI to comply with the conditions of this Order and

receive a Notice of Enrollment from the Executive Officer of the Central Coast Water Board to be considered in compliance with the Water Code.

Agricultural Discharges Not Covered Under this Order and Who Must Apply for Individual Waste Discharge Requirements

27. This Order does not waive WDRs for commercial nurseries, nursery stock production and greenhouse operations that have point-source type discharges, and fully contained greenhouse operations (those that have no groundwater discharge due to impervious floors). These operations must eliminate all such discharges of wastes or submit a ROWD to apply for individual WDRs.

III. LEGAL AND REGULATORY CONSIDERATIONS

28. Attachment A to this Order identifies applicable plans and policies adopted by the State Water Board and the Central Coast Water Board that contain regulatory requirements that apply to the discharge of waste from irrigated lands. Attachment A provides definitions of terms for purposes of this Order.

29. The Porter-Cologne Act grants authority to the State Water Board with respect to State water rights and water quality regulations and policy, and establishes nine Regional Water Boards with authority to regulate discharges of waste that could affect the quality of waters of the State and to adopt water quality regulations and policy.

30. As further described in this Order, discharges from irrigated lands affect the quality of the waters of the State depending on the quantity of the discharge, quantity of the waste, the quality of the waste, the extent of treatment, soil characteristics, distance to surface water, depth to groundwater, crop type, implementation of management practices and other site-specific factors. Discharges from irrigated lands have impaired and will continue to impair the quality of the waters of the State within the Central Coast Region if such discharges are not controlled.

31. Water Code Section 13260(a) requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the State, other than into a community sewer system, shall file with the appropriate Regional Board a ROWD containing such information and data as may be required by the Central Coast Water Board, unless the Central Coast Water Board waives such requirement.

32. Water Code Section 13263 requires the Central Coast Water Board to prescribe WDRs, or waive WDRs, for the discharge. The WDRs must implement applicable water quality control plans and the Water Code.

33. Water Code Section 13267(b)(1) authorizes the Central Coast Water Board to require dischargers to submit technical reports necessary to evaluate Discharger compliance with the terms and conditions of this Order and to assure protection of waters of the State.
34. Water Code Section 13269(a) provides that the Central Coast Water Board may waive the requirements to submit a ROWD and to obtain WDRs for a specific discharge or specific type of discharge, if the Central Coast Water Board determines that the waiver is consistent with any applicable water quality control plan and such waiver is in the public interest.
35. Water Code Section 13269 further provides that any such waiver of WDRs shall be conditional, must include monitoring requirements unless waived, may not exceed five years in duration, and may be terminated at any time by the Central Coast Water Board or Executive Officer.
36. Water Code Section 13269(a)(4)(A) authorizes the Central Coast Water Board to include as a condition of a Conditional Waiver the payment of an annual fee established by the State Water Board. California Code of Regulations, Title 23, Division 3, Chapter 9, Article 1, and Section 2200.3 sets forth the applicable fees. This Order requires each Discharger to pay an annual fee to the State Water Board in compliance with the fee schedule in Title 23 of the California Code of Regulations Section 2200.3.
37. The Water Quality Control Plan for the Central Coast Basin (Basin Plan) designates beneficial uses, establishes water quality objectives, contains programs of implementation needed to achieve water quality objectives, and references the plans and policies adopted by the State Water Board. The water quality objectives are required to protect the beneficial uses of waters of the State identified in Attachment A.
38. This Order is consistent with the Basin Plan because it requires Dischargers to comply with applicable water quality standards, as defined in Attachment A, and requires terms and conditions, including implementation of management practices as defined in Attachment B. The Order also requires monitoring and reporting as defined in Monitoring and Reporting Program (MRP) No. R3-2010-00XX to determine the effects of discharges of waste from irrigated lands on water quality, verify the adequacy and effectiveness of this Order's terms and conditions, and to evaluate individual Discharger's compliance with this Order.
39. Water Code Section 13246 requires boards, in carrying out activities that affect water quality to comply with State Water Board policy for water quality control. This Order requires compliance with applicable State Water Board policies for water quality control.

40. This Order implements and complies with the requirements of the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (NPS Policy) adopted by the State Water Board in May 2004. The NPS Policy requires, among other key elements, that an NPS control implementation program's ultimate purpose shall be explicitly stated, and that the implementation program must, at a minimum, address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable anti-degradation requirements. The NPS Policy improves the State's ability to effectively manage NPS pollution and conform to the requirements of the Federal Clean Water Act and the Federal Coastal Zone Act Reauthorization Amendments of 1990. The NPS Policy provides a bridge between the State Water Board's January 2000 *NPS Program Plan* and its 2002 *Water Quality Enforcement Policy*. The NPS Policy's five key elements are:

- a. Key Element #1 - Addresses NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses
- b. Key Element #2 - Includes an implementation program with descriptions of the Management Practices (MPs) and other program elements and the process to be used to ensure and verify proper MP implementation
- c. Key Element #3 - Includes a specific time schedule, and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements
- d. Key Element #4 - Contains monitoring and reporting requirements that allow the Water Board, dischargers, and the public to determine that the program is achieving its stated purpose(s) and/or whether additional or different MPs or other actions are required
- e. Key Element #5 - Clearly discusses the potential consequences for failure to achieve an NPS control implementation program's stated purposes

41. This Order requires Dischargers to maintain the high quality waters of the State and does not authorize further degradation of waters of the State, consistent with State Water Board Resolution No. 68-16 *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Resolution No. 68-16). Resolution No. 68-16 requires Regional Water Boards, in regulating the discharge of waste, to maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in a Regional Water Board's policies (e.g., quality that exceeds applicable water quality standards). The Regional Water Boards must require discharges to be subject to best practicable treatment or control of the discharge necessary to avoid pollution or nuisance and to maintain the highest water quality consistent with maximum benefit to the people of the State.

42. This Order is consistent with State Water Board Resolution 68-16. This Order requires Dischargers to 1) implement and evaluate management practices that will

result in achieving compliance with the terms and conditions of this Order and applicable water quality standards in the waters of the State; 2) to develop and implement a Farm Plan, as described in Attachment B, when discharges are causing or contributing to exceedances of applicable water quality standards; 3) conduct activities in a manner to prevent nuisance, and 4) conduct activities required by MRP Order No. R3-2010-00XX and revisions thereto.

IV. RATIONALE FOR THIS ORDER

43. On April 15, 1983, the Central Coast Water Board approved a policy allowing waivers of WDRs for 26 categories of discharges, including irrigation return flows and non-NPDES stormwater runoff. Pursuant to Water Code Section 13269, these waivers terminated on January 1, 2003.
44. On July 9, 2004, the Central Coast Water Board adopted Resolution No. R3-2004-0117 establishing the 2004 Conditional Waiver.
45. Dischargers enrolled in the 2004 Conditional Waiver established the Cooperative Monitoring Program (CMP) in compliance with monitoring requirements. The CMP collected and analyzed data for 15 to 20 parameters from 50 sites in multiple watersheds and identified severe surface water quality impairments resulting from agricultural land uses and discharges. CMP did not attempt to identify the individual farm operations that are causing the surface water quality impairments. The lack of discharge monitoring and reporting, the lack of verification of on-farm water quality improvements, and the lack of public transparency regarding on-farm discharges, are critical problems, especially given the scale and severity of the surface water and groundwater impacts and the resulting costs to society. These problems are addressed in this Order.
46. The 2004 Conditional Waiver expired on July 9, 2009. The Central Coast Water Board extended the 2004 Conditional Waiver to July 10, 2010 as documented in Order No. R3-2009-0050.
47. The Central Coast Water Board reviewed all available data, including information collected in compliance with the 2004 Conditional Waiver, and determines that discharges of waste from irrigated lands continue to result in degradation and pollution of surface water and groundwater, and impairment of beneficial uses, including drinking water and aquatic habitat, and determines that additional conditions are necessary to assure protection of water quality and to measure progress towards water quality improvement.
48. The Central Coast Water Board finds that it is appropriate to adopt a waiver of ROWDs and WDRs for this category of discharges because, as a group, the discharges have the same or similar waste from the same or similar operations and

use the same or similar treatment methods and management practices (e.g., source control, reduced agricultural surface runoff, reduced chemical use, holding times, cover crops, etc.).

49. The Central Coast Water Board finds that it is appropriate to regulate discharges of waste from irrigated lands under a Conditional Waiver rather than individual WDRs in order to simplify and streamline the regulatory process. Water Board staff estimate that there are more than 2500 individual owners and/or operators of irrigated lands who discharge waste from irrigated lands; therefore, it is not an efficient use of resources to adopt individual WDRs for all Dischargers within a reasonable time.

50. This Order is in the public interest because:

- a. The Order was adopted in compliance with Water Code Sections 13260, 13263, and 13269 and other applicable law;
- b. The Order requires compliance with water quality standards;
- c. The Order includes conditions that are intended to eliminate, reduce and prevent pollution and nuisance and protect the beneficial uses of the waters of the State;
- d. The Order contains more specific and more stringent conditions for protection of water quality compared to the 2004 Conditional Waiver;
- e. The Order contains conditions that are similar to the conditions of municipal stormwater NPDES permits, including evaluation and implementation of management practices to meet applicable water quality standards and a more specific MRP;
- f. The Order focuses on the highest priority water quality issues and most severely impaired waters;
- g. The Order provides for an efficient and effective use of Central Coast Water Board resources, given the magnitude of the discharges and number of persons who discharge waste from irrigated lands;
- h. The Order provides reasonable flexibility for the Dischargers who seek coverage under this Order by providing them with a reasonable time schedule and options for complying with the Water Code.

51. This Order waives the requirement to submit ROWDs and to obtain WDRs for discharges of waste from irrigated lands. This Order is conditional; may be terminated at any time; does not permit any illegal activity; does not preclude the need for permits that may be required by other State or local government agencies; and does not preclude the Central Coast Water Board from administering enforcement remedies (including civil liability) pursuant to the Water Code.

52. The Central Coast Water Board may consider issuing some individual WDRs to some Dischargers because of their actual or potential contribution to water quality impairments, history of violations, or other factors.

V. IMPACTS TO WATER QUALITY FROM AGRICULTURAL DISCHARGES

Impacts to Surface Water

53. The 2008 Clean Water Act Section 303(d) List of Impaired Waterbodies for the Central Coast Region adopted by the Central Coast Water Board in July 2009 (Impaired Waters List) identified surface water impairments for approximately 700 waterbodies related to a variety of pollutants (e.g. salts, nutrients, pesticides/toxicity, and sediment/turbidity). Sixty percent of the surface water listings identified agriculture as one of the potential sources of water quality impairment.
54. The impact from agricultural discharges on surface water quality is or has been monitored by various monitoring programs, including:
- a. The Central Coast Water Board's Ambient Monitoring Program: Over the past 10 years, the Central Coast Ambient Monitoring Program (CCAMP) has collected and analyzed water quality data to address 25 conventional water quality parameters from 185 sites across the Central Coast Region to assess surface water quality. To support analysis of conventional water quality data CCAMP has collected bioassessment data from 100 of the 185 sites, water toxicity data from 134 of the 185 sites, and sediment toxicity from 57 of the 185 sites. CCAMP data show widespread toxicity and pollution from agricultural discharges.
 - b. Cooperative Monitoring Program (CMP): Over the last 5 years, the CMP has focused on assessing agricultural water quality for the 2004 Conditional Waiver, and collected and analyzed data for 15 to 20 parameters from 50 sites in multiple watersheds. CMP data show widespread toxicity and pollution from agricultural discharges.
55. Data from CCAMP and CMP indicate that agricultural discharges most severely impact surface waterbodies in the lower Salinas and Santa Maria watersheds due to the intensive agricultural activity in these areas, and water quality in these areas are the most severely impaired in the Central Coast Region.

Impacts to Surface Water – Nutrients

56. Nitrate pollution in surface water is widespread in the Central Coast Region, with 46 waterbodies listed as impaired for this pollutant on Impaired Waters List. Seventy percent of all nitrate listings occur in the three major agricultural watersheds: Salinas River (15 waterbodies), Pajaro River (5 waterbodies) and Santa Maria River (12 waterbodies). Other significant nitrate listings fall in small drainages in areas of intensive agriculture or greenhouse activity along the south coast, including Arroyo Paredon, Franklin Creek, Bell Creek, Los Carneros and Glen Annie creeks.

57. The California Department of Public Health (CDPH) drinking water standard is 10 mg/L nitrate. The drinking water standard is not intended to protect aquatic life and Water Board staff estimates that 1 mg/L nitrate is necessary to protect aquatic life beneficial uses from biostimulation based on an evaluation of CCAMP data. Water Board staff used this criteria to evaluate surface water quality impairment to aquatic life beneficial uses in the Impaired Waters List adopted by the Central Coast Water Board in July 2009.
58. In a broadly scaled analysis of land uses, nitrate pollution is associated with row crop agriculture. In addition, discharge from even a single agricultural operation can result in adjacent creek concentrations exceeding the drinking water standard and the much lower limits necessary to protect aquatic life.
59. Agricultural discharges result in significant nitrate pollution in the major agricultural areas of the Central Coast Region. Thirty percent of all sites from CCAMP and CMP combined datasets have average nitrate concentrations that exceed the drinking water standard and limits necessary to protect aquatic life. Several of these water bodies have average nitrate concentrations that exceed the drinking water standard by five-fold or more. Some of the most seriously polluted waterbodies include the following:
- a. Tembladero Slough system (including Old Salinas River, Alisal Creek, Alisal Slough, Espinosa Slough, Gabilan Creek and Natividad Creek),
 - b. Pajaro River (including Llagas Creek, San Juan Creek, and Furlong Creek),
 - c. Lower Salinas River (including Quail Creek, Chualar Creek and Blanco Drain),
 - d. Lower Santa Maria River (including Orcutt-Soloman Creek, Green Valley Creek, and Bradley Channel),
 - e. Oso Flaco watershed (including Oso Flaco Lake, Oso Flaco Creek, and Little Oso Flaco Creek).
60. Dry season flows decreased over the last 5 years in some agricultural areas that have large amounts of tailwater runoff. Detailed flow analysis by the CMP showed that 18 of 27 sites in the lower Salinas and Santa Maria watersheds had statistically significant decreases in dry season flow over the first five years of the program. Some sites that show increasing concentrations of nitrate have coincident declining trends in flow, possibly due to reductions in tailwater. CCAMP monitoring has detected declining flows at other sites elsewhere in the Region, likely because of drought.
61. Some statistically significant changes in nitrate concentration are evident in CCAMP and CMP data. Several drainages are improving in water quality in the Santa Barbara area (such as Bell Creek, which supports agricultural activities) and on Pacheco Creek in the Pajaro watershed. However, in some of the most polluted

waters, nitrate concentrations are getting worse at many sites. In the lower Salinas and Santa Maria watersheds, flow volumes are declining at some sites, so at these locations nitrate loads are not necessarily getting worse in spite of trends in concentrations.

62. Nitrate concentrations in Oso Flaco Lake exceed the levels that support aquatic life beneficial uses, threatening remaining populations of two endangered plants, marsh sandwort and Gambel's watercress. In 25 water samples taken from Oso Flaco Lake in 2000-2001 and 2007, levels of Nitrate/Nitrite (as N) averaged 30.51 mg/L with a minimum of 22.00 mg/L and a maximum of 37.10 mg/L. Biostimulation in Oso Flaco Lake has caused the rapid and extreme growth of common wetland species, which are now crowding out sensitive species that have not become similarly vigorous.
63. Agricultural discharges result in un-ionized ammonia concentrations at levels that are toxic to salmonids at some sites in areas dominated by agricultural activity. The waterbodies where these sites are located have been placed on the Impaired Waters List due to un-ionized ammonia, particularly in the lower Salinas and Santa Maria river areas.

Impacts to Surface Water – Toxicity

64. Agricultural use of pesticides in the Central Coast Region and associated toxicity is among the highest in the State. In a statewide study of four agricultural areas conducted by the Department of Pesticide Regulation (DPR), the Salinas study area had the highest percent of surface water sites with pyrethroid pesticides detected (85 percent), the highest percent of sites that exceeded levels expected to be toxic and lethal to aquatic life (42 percent), and the highest rate (by three-fold) of active ingredients applied (113 lbs/acre).
65. Agriculture-related toxicity studies conducted on the Central Coast since 1999 indicated that toxicity resulting from agricultural discharges of pesticides has caused declining aquatic insect and macroinvertebrate populations in Central Coast streams.
66. The lower Salinas and Santa Maria areas have more overall water column invertebrate toxicity than other parts of the Central Coast Region, with much of the toxicity explained by elevated diazinon and chlorpyrifos concentrations.
67. Some agricultural drains have shown toxicity every time the drains are sampled. Researchers collaborating with CCAMP have shown that these toxic discharges can cause toxic effects in river systems that damage benthic invertebrate communities.
68. The most consistently toxic sites occur in the lower Salinas and Santa Maria watersheds, areas dominated by agricultural land uses. Creek bottom sediment is

toxic at most sites sampled in the Region (70 percent of all sites have been toxic at least once).

69. Research has shown pyrethroid pesticides are a major source of sediment toxicity in agricultural areas of the Central Coast Region.

Impacts to Surface Water – Turbidity and Temperature

70. Agricultural discharges cause and contribute to sustained turbidity in surface waters. Surface water flows at many sampling sites that include significant agricultural discharges exceed 100 Nephelometric Turbidity Unit (NTUs) as a median value. Turbidity is a cloudy condition in water due to suspended silt or organic matter. Waters that exceed 25 NTUs can reduce feeding ability in trout (Sigler et al., 1984). Elevated turbidity during the dry season is an important measure of discharge across bare soil, and thus can serve as an indicator of systems with heavy irrigation runoff to surface waters. Most CCAMP sites have a median turbidity level of under 5 NTUs.
71. The Basin Plan requires that “Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.”
72. Agricultural discharges result in sustained turbidity throughout the dry season at many sampling sites dominated by agricultural activities. Resulting turbidity greatly exceeds levels that impact the ability of salmonids to feed. Many of these sites are located in the lower Santa Maria and Salinas-Tembladero watersheds. The CMP detected some declining trends in turbidity on the main stem of the Salinas River.
73. Agricultural discharges result in water temperatures that exceed levels that are necessary to support salmonids at some sites in areas dominated by agricultural activity. Several of these sites are in major river corridors that provide rearing and/or migration habitat for salmonids. These include the Salinas, Santa Maria, and Santa Ynez rivers.
74. Biological sampling shows that benthic biota are extremely impaired in the lower Salinas and Santa Maria watersheds, and also shows that several measures of habitat quality, such as in-stream substrate and canopy cover, are also very low compared to high quality streams in the Central Coast Region and in the upper watersheds.
75. Agricultural land use practices, such as removal of vegetation and stream channelization, and discharges from agricultural fields, cause the deposition of fine sediment and sand over stream bottom substrate. This problem is especially prevalent in areas dominated by agricultural activity (lower Salinas and Santa Maria rivers). This deposition of fine sediment and sand in streams causes major

degradation of aquatic life beneficial uses by degrading aquatic habitat and impacting biological communities.

Impacts to the Marine Environment

76. The marine environment in the Central Coast Region is impacted by runoff from irrigated agriculture and other sources. Legacy pesticides have impacted the marine environment and are still found in sediment and tissue at levels of concern today. Currently applied pesticides are persistent in the aquatic environment, but initial testing has not found them in offshore areas of Monterey Bay. However, two Marine Protected Areas (MPAs), Elkhorn Slough and Moro Cojo Slough, are heavily impacted by agricultural chemicals and activities because they are located at the downstream terminus of the Salinas River and Carneros Creek watersheds, and these watersheds are dominated by agricultural land use. The Elkhorn Slough and Moro Cojo Slough MPAs are at very high to extremely high risk for additional degradation of beneficial uses. Other MPAs that are relatively near shore in agricultural areas are at medium risk for degradation of beneficial uses; these include the South Santa Ynez River MPA, and the two Monterey Bay MPAs. Other MPAs that are not near agricultural areas are at medium to low risk from agricultural discharges.

Impacts to Groundwater – Drinking Water

77. Nitrate contamination of drinking water supplies is a critical problem throughout the Central Coast Region. Studies indicate that fertilizer from irrigated agriculture is the primary source of nitrate contamination of drinking water wells and that significant loading of nitrate continues as a result of agricultural fertilizer practices.

78. Groundwater contamination from nitrate severely impacts public drinking water supplies in the Central Coast Region. A Department of Water Resources (DWR) survey of groundwater quality data collected between 1994 and 2000 from 711 public supply wells in the Central Coast Region found that 17 percent of the wells (121 wells) detected a constituent at concentrations above one or more CDPH drinking water standards or primary maximum contaminant levels (MCLs). Nitrate caused the most frequent MCL exceedances (45 mg/L nitrate as nitrate or 10 mg/L nitrate as nitrogen), with approximately 9 percent of the wells (64 wells) exceeding the drinking water standard for nitrate. According to data reported by the State Water Board's Groundwater Ambient Monitoring and Assessment Program (GAMA), recent impacts to public supply wells are greatest in portions of the Salinas Valley (up to 20 percent of wells impacted) and Santa Maria (approximately 17 percent) groundwater basins. In the Gilroy-Hollister Groundwater Basin, 11 percent are impacted, and the CDPH identified over half of the drinking water supply wells as vulnerable to discharges from agricultural-related activities. This information is readily tracked and evaluated because data is collected on a regular frequency,

made publicly available, and public drinking water supplies are regulated by CDPH as required by California law.

79. Groundwater contamination from nitrate severely impacts shallow domestic wells in the Central Coast Region resulting in unsafe drinking water in rural communities. Domestic wells (wells supplying one to several households) are typically drilled in relatively shallow groundwater, and as a result exhibit higher nitrate concentrations than deeper public supply wells. Water quality monitoring of domestic wells is not generally required and water quality information is not readily available; however, based on the limited data available, the number of domestic wells that exceed the nitrate drinking water standard is likely in the range of several hundreds or more. Private domestic well water quality is not regulated and it is estimated that thousands of rural residents drink water from these impaired sources without knowing the quality of drinking water and without treatment.
80. In the northern Salinas Valley, 25 percent of 352 wells sampled (88 wells) had concentrations above the nitrate drinking water standard. In other portions of the Salinas Valley, up to approximately 50 percent of the wells surveyed had concentrations above the nitrate drinking water standard, with average concentrations nearly double the drinking water standard and the highest concentration of nitrate approximately nine times the drinking water standard. Nitrate exceedances in the Gilroy-Hollister and Pajaro groundwater basins reflect similar severe impairment, as reported by local water agencies/districts for those basins.
81. In the Pajaro River watershed, the highest recent nitrate concentration (over 650 mg/L nitrate, more than 14 times the drinking water standard) occurred in shallow wells in the eastern San Juan subbasin under intense agricultural production. High values of nitrate concentration in groundwater (greater than 500 mg/L nitrate) have also been reported in the Llagas subbasin and the lower Pajaro coastal aquifer.
82. The costs of groundwater pollution and impacts to beneficial uses caused by irrigated agriculture are transferred to the public. Public drinking water systems expend millions of dollars in treatment and replacement costs and private well owners must invest in expensive treatment options or find new sources. Rural communities, those least able to buy alternative water sources, have few options to replace the contaminated water in their homes. This Order addresses groundwater pollution to ensure protection of beneficial uses and public health.

Impacts to Groundwater – Human Health

83. Excessive concentrations of nitrate-nitrogen or nitrite-nitrogen in drinking water are hazardous to human health, especially for infants and pregnant women. The United States Environmental Protection Agency (USEPA) established a nitrate drinking water standard of 45 mg/L nitrate as nitrate (10 mg/L nitrate as nitrogen). While

acute health effects from excessive nitrate levels in drinking water are primarily limited to infants (methemoglobinemia or "blue baby syndrome"), research evidence suggests there may be adverse health effects (i.e., increased risk of non-Hodgkin's, diabetes, Parkinson's disease, alzheimers, endocrine disruption, cancer of the organs) among adults as a result of long-term consumption exposure to nitrate.

84. Nitrogen compounds are known to cause cancer. University of Iowa research found that up to 20 percent of ingested nitrate is transformed in the body to nitrite, which can then undergo transformation in the stomach, colon, and bladder to form N-nitroso compounds that are known to cause cancer in a variety of organs in more than 40 animal species, including primates.
85. In many cases, whole communities that rely on groundwater for drinking water are threatened due to nitrate pollution, including the community of San Jerardo and other rural communities in the Salinas Valley. Local agencies and consumers have reported impacts to human health resulting from nitrate contaminated groundwater likely due to agricultural land uses, and spent significant financial resources to ensure proper drinking water treatment and reliable sources of safe drinking water for the long-term.
86. Current strategies for addressing nitrate in groundwater to achieve levels protective of human health typically include avoidance (abandoning impacted wells or re-drilling to a deeper zone), groundwater treatment to remove nitrate (i.e., dilution using blending, ion exchange, reverse osmosis, biological denitrification, and distillation), or developing additional water supplies (i.e., percolation ponds, surface water pipelines, reservoirs) to dilute nitrate-impacted sources.
87. The cost to treat and cleanup existing nitrate contamination to achieve levels that are protective of human health are very expensive to water users (e.g., farmers, municipalities, domestic well users). Research indicates that the cost to remove nitrate from groundwater can range from hundreds of thousands to millions of dollars annually for individual municipal or domestic wells. Wellhead treatment on a region wide scale would likely cost billions of dollars. Similarly, the cost to actively cleanup nitrate in groundwater on a region wide scale would also cost billions of dollars, and would be logistically difficult. If the nitrate loading due to agricultural activities is not significantly reduced, these costs are likely to increase significantly.
88. Many public water supply systems are required to provide well-head treatment or blending of drinking water sources, at significant cost, to treat nitrate before delivery to the drinking water consumer due to elevated concentrations of nitrate in groundwater. The community of San Jerardo (rural housing cooperative of primarily low-income farmworker families with approximately 250 residents) initially installed well-head treatment to treat contaminated groundwater with nitrate and other chemicals at significant cost and incurs on-going monthly treatment costs of approximately \$17,000. Monterey County public health officials determined that the

community of San Jerardo requires a new drinking water well to ensure safe drinking water quality protective of public health at an approximate cost of more than \$4 Million. The City of Morro Bay uses drinking water supplies from Morro and Chorro groundwater basins. Study results indicate that agricultural activities in these areas, predominantly over-application of fertilizer, have impacted drinking water supplies resulting in nitrate concentrations more than 4 times the drinking water standard. The City of Morro Bay must blend or provide well-head treatment to keep nitrate concentrations at levels safe for drinking water at significant cost. The City of Santa Maria public supply wells are also impacted by nitrate (in some areas nearly twice the drinking water standard) and must also blend sources to provide safe drinking water.

Impacts to Groundwater – Nitrate and Salts

89. Groundwater pollution due to salts is also one of the most significant and critical problems in the Central Coast Region. Agricultural activities are a significant cause of salt pollution, primarily due to the following:
- a. Seawater intrusion within the coastal basins (e.g., Salinas and Pajaro groundwater basins) caused by excessive agricultural pumping.
 - b. Agricultural pumping/recycling of groundwater that concentrates salts in the aquifers.
 - c. Agricultural leaching of salts from the root zone.
 - d. The importation of salts into the basin from agricultural soil amendments and domestic/municipal wastewater discharges.
90. Agricultural pumping of groundwater contributes to saltwater intrusion into the Salinas and Pajaro groundwater basins, which is causing increasing portions of the groundwater basins to be unusable for agriculture and municipal supply.
91. Agricultural activities contribute significant loading of nitrates into groundwater from the following sources:
- a. Intensive fertilizer applications on permeable soils.
 - b. High-nitrate tailwater discharging to creek recharge areas.
 - c. Liquid fertilizer hookups on well pump discharge lines lacking backflow prevention devices.
 - d. Groundwater wells that are screened through multiple aquifers, thereby acting as conduits for pollution transport into deeper groundwater.
 - e. Spills and/or uncontrolled wash water or runoff from fertilizer handling and storage operations.
 - f. Infiltration from leaky holding ponds.
92. Agricultural discharges contribute to pollution of groundwater basins most vulnerable to waste migration including major portions of the Santa Maria, Salinas, and Gilroy-Hollister groundwater basins. However, any groundwater basin, including those that

are confined (pressured), are susceptible to downward waste migration through improperly constructed, operated (e.g., fertigation or chemigation without backflow prevention), or abandoned wells. Additionally, land with permeable soils and shallow groundwater are susceptible to downward waste migration. Such areas of groundwater vulnerability often overlap with important recharge areas that serve to replenish drinking water supplies.

93. Agricultural discharges of fertilizer are the main source of nitrate pollution to shallow groundwater based on nitrate loading studies conducted in the Llagas subbasin and the lower Salinas groundwater basin. In 2007, the California Department of Food and Agriculture (CDFA) reported that approximately 56 million pounds of nitrogen was purchased as fertilizer in Monterey County. A 1990 Monterey County study of nitrate sources leaching to soil and potentially groundwater in Santa Cruz and Monterey Counties indicated that irrigated agriculture contributes approximately 78 percent of the nitrate loading to groundwater in these areas.

Impacts to Aquatic Habitat

94. California has lost an estimated 91 percent of its historic wetland acreage, the highest loss rate of any state. Similarly, California has lost between 85 and 98 percent of its historic riparian areas. Owners and operators of agricultural operations historically removed riparian and wetland areas to plant cultivated crops.
95. The 2004 Conditional Waiver required protection of beneficial uses including aquatic and wildlife habitat. This Order continues that requirement and ensures the protection of aquatic life beneficial uses and addresses water quality degradation that has occurred, in part, as a result of encroachment by agricultural land uses on riparian and wetland areas.
96. Riparian and wetland areas play an important role in protecting several of the beneficial uses designated in the Basin Plan. Agricultural activities have degraded, and threaten to degrade, these beneficial uses related to aquatic habitat, which include, but are not limited to:
- a. Ground Water Recharge;
 - b. Fresh Water Replenishment;
 - c. Warm Fresh Water Habitat;
 - d. Cold Fresh Water Habitat;
 - e. Inland Saline Water Habitat;
 - f. Estuarine Habitat;
 - g. Marine Habitat;
 - h. Wildlife Habitat;
 - i. Preservation of Biological Habitats of Special Significance;
 - j. Rare, Threatened or Endangered Species;
 - k. Migration of Aquatic Organisms;
 - l. Spawning, Reproduction and/or Early Development;

m. Areas of Special Biological Significance;

97. Riparian and wetland areas play an important role in achieving several water quality objectives established to protect specific beneficial uses. These include, but are not limited to those water quality objectives related to natural receiving water temperature, dissolved oxygen, suspended sediment load, settleable material concentrations, chemical constituents, and turbidity. In particular, seasonal and daily water temperatures are strongly influenced by the amount of solar radiation reaching the stream surface, which is influenced by riparian vegetation. Removal of vegetative canopy along surface waters threatens maintenance of temperature water quality objectives, which in turn negatively affects dissolved oxygen related water quality objectives, which in turn negatively affects the food web.
98. Riparian and wetland areas function to retain and recycle nutrients, thereby reducing nutrient loading directly to surface water or groundwater. Riparian and wetland areas trap and filter sediment and other wastes contained in agricultural runoff, and reduce turbidity. Riparian and wetland areas temper physical hydrologic functions, protecting aquatic habitat by dissipating stream energy and temporarily allowing the storage of floodwaters, and by maintaining surface water flow during dry periods. Riparian and wetland areas regulate water temperature and dissolved oxygen, which must be maintained within healthy ranges to protect aquatic life. In the absence of human alteration, riparian areas stabilize banks and supply woody debris, having a positive influence on channel complexity and in-stream habitat features for fish and other aquatic organisms.
99. Riparian areas are critical to the quality of in-stream habitat. Riparian vegetation provides woody debris, shade, food, nutrients and habitat important for fish, amphibians and aquatic insects. Riparian areas help to sustain broadly based food webs that help support a diverse assemblage of wildlife. More than 225 species of birds, mammals, reptiles, and amphibians depend on California's riparian habitats.
100. Up to 43 percent of the federally threatened and endangered species rely directly or indirectly on wetlands for their survival. Of all the states, California has the greatest number of at-risk animal species (15) and, by far, the greatest number of at-risk plant species (104) occurring within isolated wetlands.
101. The California Wetlands Conservation Policy, also known as "the No Net Loss Policy," adopted by Governor Wilson in 1993, established the State's intent to develop and adopt a policy framework and strategy to protect California's unique wetland ecosystems. One of the goals of this policy is to ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship and respect for private property.

102. The Basin Plan contains requirements to protect aquatic habitat, includes, but is not limited to, Chapter 5, Page V-13, V.G. Erosion and Sedimentation :A filter strip of appropriate width, and consisting of undisturbed soil and riparian vegetation or its equivalent, shall be maintained, wherever possible, between significant land disturbance activities and watercourses, lakes, bays, estuaries, marshes, and other water bodies. For construction activities, minimum width of the filter strip shall be thirty feet, wherever possible as measured along the ground surface to the highest anticipated water line.
103. Real and/or perceived incompatible demands between food safety and environmental protection are a major issue in the Central Coast Region. Dischargers have removed vegetated management practices (in some cases, after receiving substantial public funds to install the vegetated management practices) and have removed riparian vegetation, both of which increase waste loading to waters of the State and impair beneficial uses.
104. According to a spring 2007 survey by the Resource Conservation District of Monterey County (RCDMC), 19 percent of 181 respondents said that their buyers or auditors had suggested they remove non-crop vegetation from their ranches to prevent contamination from pathogens such as the 0157:H7 bacteria. In response to pressures by auditors and/or buyers, approximately 15 percent of all growers surveyed indicated that they had removed or discontinued use of previously adopted management practices used for water quality protection. Grassed waterways, filter or buffer strips, and trees or shrubs were among the management practices removed (RCDMC, 2007). According to a follow-up spring 2009 survey by the Resource Conservation District of Monterey County, growers are being told by their auditors and/or buyers that wetland or riparian plants are a risk to food safety (RCDMC, 2009).
105. Riparian vegetation and vegetated buffer zones are critically important to prevent the transport of sediment and bacteria, including the downstream transport of 0157:H7 bacteria. Data indicated that the major sources of 0157:H7 bacteria are domestic pigs and cattle, not wildlife. In many agricultural areas of the Central Coast Region, cattle and pig operations are located upstream of irrigated agricultural fields. Therefore, the removal of riparian and wetland vegetation and their buffer zones increases the transport of pathogens such as 0157:H7 and the risk of food contamination. Also, the 2006 outbreak of 0157:H7 contamination occurred in packaged leafy greens, and the bacteria was not determined to be from wildlife. The removal of riparian and wetland vegetation and their buffer zones for food safety purposes is not warranted, is not supported by the literature, and may increase the risk of food contamination.
106. Vegetated riparian areas provide greater environmental value than unvegetated floodplains or cropped fields. Riparian forests provide as much as 40 times the water storage of a cropped field and 15 times that of grass turf. Agricultural floodplains are

approximately 80 to 150 percent more erodible than riparian forest floodplains and riparian forest floodplains serve a valuable function by trapping sediment from agricultural fields.

107. Riparian vegetation may play a role in integrated pest management by reducing the amount of chemicals and pesticides needed on agricultural lands and protecting water quality as a result. For example, cavity nesting riparian bird species prey on rodents and pest insects in agricultural fields.
108. Riparian and wetland areas are an effective tool in improving agricultural land management. Wide riparian areas act as buffers to debris that may wash onto fields during floods, thereby offsetting damage to agricultural fields and improving water quality.
109. Exotic plant species exclude native riparian and wetland vegetation by out-competing native species for habitat. Additionally, exotic plants do not support the same diversity of wildlife native to riparian forests, often use large amounts of water, and can exist as monocultural stands of grass. Grass habitat is very different from the complex habitat structure provided by a diversity of riparian trees and shrubs, and results in habitat changes that affect the aquatic based food web.

VI. AGRICULTURAL REGULATORY PROGRAM

Agricultural Regulatory Program Implementation

110. The Central Coast Water Board is maximizing regulatory effectiveness by identifying and prioritizing actions that address the most significant agricultural water quality problems in the Central Coast Region, including the discharge of waste in agricultural tailwater, nitrate in groundwater from fertilizer, surface water toxicity resulting from pesticides, surface water nutrients from fertilizer, increasing salinity, sediment discharge and degradation of aquatic habitat.
111. The Central Coast Water Board is addressing priority agricultural water quality issues, on a watershed basis in coordination with other Water Board programs and efforts, focused in the most intensive agricultural areas of the region including the Salinas, Pajaro, and Santa Maria watersheds. In addition, Central Coast Water Board staff will assess and track progress towards specific measures of water quality improvement, and adapt to the feedback the tracking provides.
112. The Central Coast Water Board will evaluate compliance of individual Dischargers with the terms and conditions of this Order based on enrollment information, risk of water quality impairment, content of technical reports (including Farm Plan), prioritized inspections, and water quality monitoring data. In addition to the determination of noncompliance and water quality impairment, the Central Coast

Water Board will enforce the conditions of this Order in a manner similar to enforcement of WDRs and consistent with the State Water Board's Enforcement Policy, focusing on the highest priority water quality issues and most severely impaired waters.

113. The Central Coast Water Board will consider the history of compliance and violations, and progress made toward compliance and water quality improvement demonstrated by individual Dischargers when determining potential enforcement actions. In some cases, the Central Coast Water Board may terminate coverage under this Order and require the Discharger to submit a ROWD and comply with the Water Code pursuant to individual WDRs.

114. The Central Coast Water Board considers certain types of discharges to be "low risk" discharges, including those where Dischargers effectively implement certain management practices that have been demonstrated to result in a significantly lower risk of causing or contributing to degradation of water quality or impairment of beneficial uses. "Low Risk" discharges include vineyard operations certified by the Central Coast Vineyard Team as Sustainable in Practice (SIP) and operations where the Discharger demonstrates effective implementation of the following practices:

- a. Eliminates all tailwater;
- b. Does not farm adjacent to or in close proximity (within 1000 feet) to an impaired surface waterbody identified on the Impaired Waters List;
- c. Uses integrated pest management techniques and does not use pesticides identified in Attachment A (or otherwise identified in pesticide use regulation) as having a high potential to degrade/pollute surface water;
- d. Implements a nutrient management plan certified by a XXX *{Note: Appropriate professional certification, such as Certified Crop Advisor (CCA) or other certification with similar expertise and experience}* to be protective of water quality (e.g. will not contribute to an exceedance of water quality standards); and
- e. Implements stormwater control measures to minimize erosion and sediment deposition using best practicable treatment or control.

The Central Coast Water Board considers these "low-risk discharges" to be lowest priority for any regulatory action, unless information is available to demonstrate otherwise. This Order specifies that demonstrated "low-risk discharges" will not be subject to individual water quality monitoring and reporting requirements included in this Order, unless otherwise specified. The Executive Officer will determine whether a Discharger fits within this "low risk" category based on the Discharger's demonstration that it is CCVT SIP certified or effectively implements the specified practices.

Management Practice Implementation

115. Commercial agriculture is an intensive land use. Relatively sophisticated agronomic and engineering approaches are available and necessary to minimize the discharge of waste from irrigated lands, including sediment, nutrients and pesticides that impact water quality and beneficial uses of waters of the State. Traditionally, conservation practices available to Dischargers were developed for irrigation efficiency or for erosion control, and not necessarily for water quality protection. To achieve water quality protection and improvement, Dischargers must take responsibility for selecting and effectively implementing management strategies to resolve priority water quality problems associated with the specific operation and watershed, utilize proper management practice design and maintenance, and implement effectiveness monitoring and adaptive management.
116. Dischargers must effectively implement a broad array of management measures to achieve water quality improvement, including practices and projects at the scale of a single farm, or cooperatively among multiple farms in a watershed or sub watershed.
117. The Farm Plan is an effective tool to identify the management practices that will be implemented to protect and improve water quality and verify compliance with this Order. Elements of the Farm Plan include irrigation management, pesticide management, nutrient management, salinity management, sediment and erosion control, and aquatic habitat protection. Farm Plans also contain a schedule for implementation of practices and an evaluation of progress towards water quality improvement. The development and implementation of Farm Plans was a requirement of the 2004 Order. This Order extends and builds upon that requirement by requiring the submittal of the Farm Plan, upon notice by the Executive Officer, to verify the implementation of management practices focused on priority water quality issues, and by requiring individual monitoring to verify the effective implementation of management practices.
118. Individual on-farm water quality monitoring is critical to adaptively manage and effectively implement practices to protect water quality. The data and reporting will inform the Discharger, the Water Board, and the public regarding compliance with this Order, and increases the potential success in adapting management practices to address priority water quality issues. Dischargers participating in on-farm water quality monitoring have reported, in some cases, significant reduction or elimination of their discharge of waste through effective and adaptive management practice implementation.
119. Agricultural discharges, especially surface irrigation runoff, have the potential to transport sediments and associated waste constituents that exceed water quality standards. Eliminating irrigation runoff is an effective way to minimize and/or eliminate agricultural discharges of waste to waters of the State.
120. Agricultural water quality research identifies the importance of minimizing the amount of water runoff coming from farms. Irrigation runoff occurs when the

application rate of the irrigation system exceeds the infiltration rate of the soil due to numerous factors, including poor irrigation efficiency. The percent of applied water lost to runoff may start off low, and increase towards the end of longer irrigations, or with frequent irrigation where soil is saturated. Fields with soils susceptible to low infiltration rates may lose 5 percent to 30 percent or more of their applied water to runoff.

121. Applying fertilizer, soil amendments, or agricultural products directly through an irrigation system (fertigation) increases nitrate levels in irrigation water. Runoff from fertigations is likely to be extremely high in nitrate. Agricultural research conducted in the Pajaro Valley and Salinas Valley watersheds has identified nitrate values in agricultural tailwater and drainage ditches exceeding 100 mg/L nitrate in some cases (more than ten times the drinking water standard, and likely more than 100 times the level necessary to protect aquatic life).
122. Agricultural studies document the common over-application of fertilizers, and fertilizer and animal manure are the most dominant and widespread nitrate sources to groundwater. Effective nutrient management practices to reduce the concentration of nutrients in irrigation runoff, deep percolation, and stormwater, include but are not limited to, irrigation efficiency to reduce runoff and deep percolation, nutrient budgeting to optimize fertilizer application and eliminate excessive nutrient applications, and techniques to trap nutrients between crop growing seasons and during intense periods of rainfall.
123. Agricultural studies and practices demonstrate that minimizing the production of polluted tailwater through irrigation efficiency and nutrient management practices and keeping runoff from leaving the farm is cost effective. Improving irrigation water application according to real time soil moisture data has resulted in some of the lowest concentrations of nutrients in percolating waters, confirming that irrigation efficiency is a key factor in reducing leaching of nutrients.
124. Agricultural land uses can disrupt the natural vegetation-soil cycles and biota diversity, keeping the soil surface unprotected and vulnerable to erosive forces (wind and rain), which increases the amount of sediments dispersed and transported from agricultural lands into surface water.
125. Agricultural mechanization and tillage of soil and land for bed preparation, crop maintenance and pest control, can destroy the soil structure and degrade the land, which increases the amount of sediment and associated waste constituents discharged into surface water.
126. Stormwater runoff from irrigated lands often results in significant erosion and the discharge of sediment, nutrients, and pesticides. Effective erosion control and sediment control management practices include but are not limited to cover crops, filter strips, and furrow alignment to reduce runoff quantity and velocity, hold fine

particles in place, and increase filtration to minimize the impacts to water quality. Crops grown using impervious plastic can be particularly problematic as they often result in significantly increased irrigation runoff volumes and velocities in agricultural furrows and ditches that may drain to waters of the State.

127. Runoff from greenhouses and nurseries has a high potential for water quality impairment. CCAMP data from Franklin Creek (Santa Barbara County) indicated high levels of nutrients and toxicity. Many greenhouse operations successfully reduced these levels when the Central Coast Water Board required them to eliminate surface water discharges.
128. Irrigation runoff from large greenhouses and nurseries has been documented to be as much as 4,000,000 gallons per month. Greenhouse operations often leach crops to prevent salts build up in the root zone. Excessive leaching leads to greater runoff volumes and transport of waste.
129. Fertilizer usage in greenhouses and nurseries is intensive. A study conducted by University of California, Davis found that at least 60 percent of California greenhouses have more than 450 pounds of nitrogen per acre in the root zone at any given time. In many cases, more than half of the fertilizer nitrogen applied to ornamental crops is lost to leaching due, in part, to over application of fertilizers and poor irrigation efficiency, and is a significant source of surface water and groundwater pollution.
130. Pesticide use for ornamental plants grown in greenhouses and nurseries is also intensive. According to pesticide use reports submitted to DPR, the greatest pesticide use at nurseries is with outdoor container nurseries and field-grown plants. Heavy pesticide use, coupled with an intensive irrigation regime used by many nurseries may result in a discharge of waste and poses significant threat of pollution to surface water and groundwater from pesticides.
131. Dischargers can significantly reduce the potential impact from agricultural discharges by the effective implementation of management practices identified in Farm Plans focused on priority water quality issues related to the specific operation and watershed.
132. Education is an important component of an irrigated lands program that leads to the implementation of new effective management practices that protect and enhance water quality.

VII. PUBLIC INPUT AND STAKEHOLDER PROCESS

133. The Central Coast Water Board notified interested persons that the Central Coast Water Board will consider the adoption of this Order, which conditionally waives

individual WDRs and establishes conditions for the control of discharges of waste from irrigated lands to waters of the State, and provided multiple opportunities for a public input.

134. In December 2008, the Central Coast Water Board invited members of the public to participate in development of this Order and provide recommendations to Central Coast Water Board staff. In particular, the Central Water Board requested the assistance of an Agricultural Advisory Panel in developing appropriate milestones, timetables, and verification monitoring programs to resolve water quality problems and achieve compliance with the Basin Plan. The Agricultural Advisory Panel met from December 2008 to September 2009; however, the Panel disbanded and did not submit specific recommendations to the Water Board. Additionally, in early 2009, the Central Coast Water Board notified all water purveyors, water districts and municipalities that staff was developing recommendations for this Order.

135. In December 2009, the Central Coast Water Board encouraged any interested person who wanted to present alternative recommendations to this Order to provide those recommendations in writing by April 1, 2010.

136. On February 1, 2010, the Central Coast Water Board publicly released a preliminary report and preliminary draft order for the regulation of discharges from irrigated lands.

137. <Reserved for Public Workshop Description>

138. <Reserved for Public Comment Period Description>

139. <Reserved for Public Hearing Description>

VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

140. For purposes of adoption of this Order, the Central Coast Water Board is the lead agency pursuant to the CEQA (Public Resources Code Sections 21100 et seq.).

141. <Reserved for CEQA description. This section will be completed in compliance with CEQA requirements.>

IT IS HEREBY ORDERED THAT:

1. Pursuant to Water Code Sections 13263, 13267, and 13269, each Discharger, as defined in Attachment A, must comply with the terms and conditions contained in Attachment B in order to meet the provisions contained in Water Code Division 7 and regulations and plans and policies adopted thereunder.

2. This Order shall not create a vested right to discharge, and all discharges of waste are a privilege, not a right, as provided for in Water Code Section 13263(g).
3. Dischargers may not discharge any waste not specifically regulated by this Order except in compliance with the Water Code.
4. The Discharger must comply with MRP Order No. R3-2010-00XX and any revisions thereto by the Executive Officer.
5. Pursuant to Water Code Section 13269, the Central Coast Water Board waives the requirement for Dischargers to submit a ROWD pursuant to Water Code Section 13260 and to obtain WDRs pursuant to Water Code Section 13263(a) for discharges of waste from irrigated lands if the Discharger complies with this Order, including Attachments, and MRP Order No. R3-2010-00XX.
6. The Executive Officer may propose individual WDRs to the Water Board for any Discharger at any time.
7. Pursuant to Water Code Section 13269, this action waiving the issuance of WDRs for certain specific types of discharges: 1) is conditional; 2) may be terminated by the Central Coast Water Board at any time; 3) may be superceded if the State Water Board or Central Coast Water Board adopts specific WDRs or general WDRs for this type of discharge; 4) does not permit any illegal activity; 5) does not preclude the need for permits which may be required by other local or governmental agencies; and 6) does not preclude the Central Coast Water Board from administering enforcement remedies (including civil liability) pursuant to the Water Code.
8. The Central Coast Water Board or the Executive Officer may, at any time, terminate applicability of this Order with respect to an individual Discharger upon written notice to the Discharger.
9. This Order becomes effective on **10 July 2010** and expires on **9 July 2015** unless rescinded or renewed by the Central Coast Water Board.

I, ROGER W. BRIGGS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order and Attachments adopted by the California Regional Water Quality Control Board, Central Coast Region, on 10 July 2010.

ROGER W. BRIGGS, Executive Officer

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL COAST REGION

ORDER NO. R3-2010-00XX

APPLICABLE WATER QUALITY CONTROL PLANS AND DEFINITIONS FOR CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS

Order No. R3-2010-00XX requires Dischargers to comply with applicable state plans and policies and applicable state and federal water quality standards and to prevent nuisance. The water quality standards are set forth in state and federal plans, policies, and regulations. The California Regional Water Quality Control Board (Central Coast Water Board), Central Coast Region's Water Quality Control Plan contains specific water quality objectives, beneficial uses, and implementation plans that are applicable to discharges of waste and/or waterbodies that receive discharges of waste from irrigated lands. The State Water Resources Control Board (State Water Board) has adopted plans and policies that may be applicable to discharges of waste and/or surface waterbodies or groundwater that receive discharges of waste from irrigated lands. The United States Environmental Protection Agency (USEPA) has adopted the *National Toxics Rule* and the *California Toxics Rule*, which constitute water quality criteria that apply to waters of the United States.

The specific waste constituents to be monitored and the applicable water quality standards that protect identified beneficial uses for the receiving water are set forth in the Monitoring and Reporting Program Order No. R3-2010-00XX.

This Attachment A lists relevant plans, policies, regulations, and definitions of terms used in Order No. R3-2010-00XX.

WATER QUALITY CONTROL PLAN

The *Water Quality Control Plan for the Central Coast Region* (Basin Plan) was adopted by the Central Coast Water Board in 1975 and is periodically revised. The Basin Plan is available by contacting the Central Coast Water Board at (805) 549-3147 or by visiting the Central Coast Water Board's website at:

http://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/

OTHER RELEVANT PLANS, POLICIES, AND REGULATIONS

State Water Resources Control Board, Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, October 1968.

State Water Resources Control Board, *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, June 1972.

State Water Resources Control Board, Resolution No. 74-43, *Water Quality Control Policy for the Enclosed Bays and Estuaries of California*, May 1974.

State Water Resources Control Board, Resolution No. 88-63, *Sources of Drinking Water Policy*, May 1988.

State Water Resources Control Board, *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, May 2004.

State Water Resources Control Board, *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP)*, February 2005

State Water Resources Control Board, *Water Quality Control Plan for Ocean Waters of California (CA Ocean Plan)*, April 2005.

State Water Resources Control Board, *Water Quality Enforcement Policy*, February 19, 2002.

United States Environmental Protection Agency, *National Toxics Rule*, 40 CFR 131.36, 57 FR 60848, December 1992.

United States Environmental Protection Agency, *California Toxics Rule*, 40 CFR 131.38, 65 FR 31682, May 2000.

DEFINITIONS

The following definitions apply to Order No. R3-2010-00XX, and Monitoring and Reporting Program as related to discharges of waste from irrigated lands. The terms are arranged in alphabetical order. All other terms not explicitly defined for the purposes of this Order and Monitoring and Reporting Program shall have the same definitions as prescribed by California Water Code Division 7 or are explained within the Order or the Monitoring and Reporting Program documents.

1. Anti-degradation. The State Water Board established a policy to maintain high quality waters of the State - Resolution 68-16 "*Statement of Policy with Respect to Maintaining High Quality Waters in California.*" Resolution 68-16 requires existing high quality water to be maintained until it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of water, and will not result in water quality less than that prescribed in the policies. Regional Water Boards are required to ensure compliance with Resolution 68-16. The Central Coast Water Board must require discharges to be subject to *best practicable treatment or control* of the discharge necessary to avoid pollution or nuisance and to maintain the highest water quality consistent with maximum benefit to the people of the State. Resolution 68-16 has been approved by the USEPA to be consistent with the federal anti-degradation policy.
2. Aquatic Habitat. The physical, chemical and biological components and functions of riparian areas and wetlands and their buffer zones.
3. Basin Plan. The Basin Plan is the Central Coast's Region Water Quality Control Plan. The Basin Plan describes how the quality of the surface and groundwater in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The Basin Plan includes beneficial uses, water quality objectives, and a program of implementation.
4. Beneficial Uses. The Basin Plan establishes the beneficial uses to be protected in the Central Coast Region. Beneficial uses for surface water and groundwater are divided into twenty-four standard categories identified below. The following beneficial uses apply to all waterbodies:
 - agricultural supply (AGR)
 - aquaculture (AQUA)
 - areas of special biological significance (ASBS)
 - cold freshwater habitat (COLD)
 - commercial and sportfishing (COMM)
 - estuarine habitat (EST)
 - freshwater replenishment (FRESH)
 - groundwater recharge (GWR)
 - hydropower generation (POW)
 - industrial process supply (PRO)
 - industrial service supply (IND)
 - inland saline water habitat (SAL)
 - marine habitat (MAR)
 - municipal and domestic supply (MUN)
 - migration of aquatic organisms (MIGR)
 - navigation (NAV)
 - non-contact recreation (REC2)
 - preservation of biological habitats of special significance (BIOL)
 - rare, threatened or endangered species (RARE)
 - shellfish harvesting (SHELL)
 - spawning, reproduction, and development (SPWN)
 - warm freshwater habitat (WARM)
 - water contact recreation (REC1)
 - wildlife habitat (WILD)

5. Concentration. The relative amount of a substance mixed with another substance. An example is 5 parts per million (ppm) of nitrogen in water or 5 mg/L.
6. Discharge. A release of a waste to waters of the State, either directly to surface waters or through percolation to groundwater. Wastes from irrigated agriculture include but are not limited to earthen materials (soil, silt, sand, clay, and rock), inorganic materials (metals, plastics, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.) and organic materials such as pesticides and herbicides.
7. Discharger. The owner and operator of irrigated lands that discharge or have the potential to discharge waste that could directly or indirectly reach waters of the State and affect the quality of any surface water or groundwater.
8. Discharges of Waste from Irrigated Lands. Surface water and groundwater discharges, such as irrigation return flows, tailwater, drainage water, subsurface drainage generated by irrigating crop land or by installing and operating drainage systems to lower the water table below irrigated lands (tile drains), stormwater runoff flowing from irrigated lands, stormwater runoff conveyed in channels or canals resulting from the discharge from irrigated lands, runoff resulting from frost control, and/or operational spills containing waste.
9. Ephemeral Stream. A channel that holds water during and immediately after rain events.
10. Erosion. The wearing away of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building, or logging.
11. Erosion and Sediment Control Practices. Practices used to prevent and reduce the amount of soil and sediment entering surface water in order to protect or improve water quality.
12. Exceedance. A reading using a field instrument or a detection by a California State-certified analytical laboratory where the detected result is above an applicable water quality standard for the parameter or constituent. For toxicity tests, an exceedance is a result that is statistically lower than the control sample test result.
13. Farm Water Quality Management Plan (Farm Plan). The Farm Plan is a document that contains, at a minimum, identification of management practices that are being or will be implemented to protect and improve water quality by addressing irrigation management, pesticide management, nutrient management, salinity management, sediment and erosion control, and aquatic habitat protection. Farm Plans also contain a schedule for the effective implementation of management practices and verification monitoring to determine compliance with the requirements of this Order

(schedules, milestones, effluent limits, etc.). Consistent with the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands adopted by the Board in July 2004 (Order No. R3-2004-0117), this Order requires Dischargers to develop and implement a Farm Plan focused on the priority water quality issues associated with a specific operation and the priority water quality issues associated with a specific watershed or subwatershed.

14. Groundwater. The supply of water found beneath the earth's surface, usually in aquifers, which supply wells and springs.
15. Groundwater Protection Practices. Management practices designed to reduce or eliminate transport of nitrogen, pesticides, and other waste constituents into groundwater.
16. Integrated Pest Management Program (IPM). A pest management strategy that focuses on long-term prevention or suppression of pest problems through a combination of techniques such as encouraging biological control, use of resistant varieties, or adoption of alternative cultivating, pruning, or fertilizing practices or modification of habitat to make it incompatible with pest development. Pesticides are used only when careful field monitoring indicates they are needed according to pre-established guidelines or treatment thresholds.
17. Intermittent Stream. A stream that holds water during wet portions of the year.
18. Irrigated Lands. For the purpose of this Order, irrigated lands include lands where water is applied for the purpose of producing commercial crops and include, but are not limited to, land planted to row, vineyard, field and tree crops as well as commercial nurseries, nursery stock production and greenhouse operations with soil floors, that do not have point-source type discharges, and are not currently operating under individual Waste Discharge Requirements (WDRs). Lands that are planted to commercial crops that are not yet marketable, such as vineyards and tree crops, must also obtain coverage under this Order.
19. Irrigation. Applying water to land areas to supply the water and nutrient needs of plants.
20. Irrigation Management Practices. Management practices designed to improve irrigation efficiency and reduce the amount of irrigation return flow or tailwater, and associated degradation or pollution of surface and groundwater caused by discharges of waste associated with irrigated lands.
21. Irrigation Runoff or Return Flow. Surface and subsurface water that leaves the field following application of irrigation water. See also, Tailwater.

22. Irrigation System Distribution Uniformity. Irrigation System Distribution Uniformity is a measure of how uniformly irrigation water is applied to the cropping area, expressed as a percentage. A nonuniform distribution can deprive portions of the crop of sufficient irrigation water, and can result in the excessive irrigation leading to water-logging, plant injury, salinization, irrigation runoff and transport of chemicals to surface water and groundwater.
23. Load. The concentration or mass of a substance discharged over a given amount of time, for example 10 mg/L/day or 5 Kg/day, respectively.
24. Low-Risk Discharge. Low-Risk Discharges are those discharges where Dischargers demonstrate low-risk by submitting information in their Notice of Intent for approval by the Executive Officer that they are 1) a vineyard operation certified by the Central Coast Vineyard Team (CCVT) as Sustainable in Practice (SIP); or 2) an operation that meets all of the following criteria:
- a. Eliminates all tailwater;
 - b. Does not farm adjacent to or in close proximity (within 1000 feet) to an impaired surface waterbody identified on the Impaired Waters List;
 - c. Demonstrates effective use of integrated pest management techniques and does not use pesticides identified in Attachment A (or elsewhere) as having a high potential to degrade/pollute surface water;
 - d. Demonstrates effective use of a nutrient management plan certified by a XXX *{Note: Appropriate professional certification, such as Certified Crop Advisor (CCA) or other certification with similar expertise and experience}* to be protective of water quality (e.g. will not contribute to an exceedance of water quality standards); and
 - e. Demonstrates effective use of stormwater control measures to minimize erosion and sediment deposition using best practicable treatment or control.
25. Monitoring. Sampling and analysis of receiving water quality conditions, discharge water quality, aquatic habitat conditions, effectiveness of management practices, and other factors that may affect water quality conditions to determine compliance with this Order or other regulatory requirements. Monitoring includes but is not limited to: surface water or groundwater sampling, on-farm water quality monitoring undertaken in connection with agricultural activities, monitoring to identify short and long-term trends in in-stream water quality or discharges from sites, inspections of operations, management practice implementation and effectiveness monitoring, maintenance of on-site records and management practice reporting.
26. Nitrate Hazard Index. In 1995, the University of California Center for Water Resources (WRC) developed the Nitrate Groundwater Pollution Hazard Index (Nitrate Hazard Index). The purpose of the Nitrate Hazard Index is to identify agricultural fields with the highest vulnerability for nitrate contamination to groundwater, based on soil, crop, and irrigation practices. The hazard index number

can range from 1 through 80 with the hazard increasing with increasing hazard index number. The WRC states that an index number greater than 20 indicates greater risk for nitrate contamination to groundwater and should receive careful attention. http://www.lib.berkeley.edu/WRCA/WRC/wqp_hazard.html

27. Non-point Source Pollution (NPS). Diffuse pollution sources that are generally not subject to NPDES permitting. The wastes are generally carried off the land by runoff. Common non-point sources are activities associated with agriculture, timber harvest, certain mining, dams, and saltwater intrusion.
28. Non-Point Source Management Measures. To combat NPS pollution, the State Water Board NPS Program adopted management measures as goals for the reduction of polluted runoff generated from five major categories, including agriculture. Management measures address the following components for agriculture: Erosion and sediment control; facility wastewater and runoff from confined animal facilities; nutrient management; pesticide management; irrigation water management; grazing management, and groundwater protection.
29. Non-Point Source Management Practices. Methods or practices selected by entities managing land and water to achieve the most effective, practical means of preventing or reducing pollution from diffuse sources, such as wastes carried off the landscape via urban runoff, excessive hill, slope or streambed and bank erosion, etc. Management Practices include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. Management Practices can be applied before, during, and after pollution-causing activities to prevent, reduce, or eliminate the introduction of wastes into receiving waters.
30. Nutrient. Any substance assimilated by living things that promotes growth.
31. Nutrient Management Practices. Management practices designed to reduce the nutrient loss from agricultural lands, which occur through edge-of-field runoff or leaching from the root zone.
32. Operational Spill. Irrigation water that is diverted from a source such as an irrigation well or river, but is discharged without being delivered to or used on an individual field.
33. Perennial Stream. A stream that holds water throughout the year.
34. Pesticides with a High Potential to Degrade/Pollute Surface Water. The following pesticides have an increased potential to degrade/pollute surface water (University of California, Agriculture and Natural Resources (UC-ANR) Publication 8161):

| | | |
|------------------|---------------|------------------------------------|
| (S)-CYPERMETHRIN | DIFLUBENZURON | METHYL PARATHION |
| 2,4-D | DIMETHOATE | METHYL PARATHION, OTHER RELATED |

| | | |
|--|--|---------------------------|
| 2,4-D, 2-ETHYLHEXYL ESTER | DIQUAT DIBROMIDE | METRIBUZIN |
| 2,4-D, ALKANOLAMINE SALTS (ETHANOL AND ISOPROPANOL AMINES) | DISULFOTON | MSMA |
| 2,4-D, DIMETHYLAMINE SALT | DITHIOPYR | MYCLOBUTANIL |
| 2,4-D, ISOOCTYL ESTER | DIURON | NALED |
| 2,4-D, TRIISOPROPANOLAMINE SALT | ENDOSULFAN | NAPROPAMIDE |
| ABAMECTIN | ENDOTHALL, MONO [N,N-DIMETHYL ALKYLAMINE] SALT | NORFLURAZON |
| ACEPHATE | EPTC | ORYZALIN |
| ATRAZINE | ESFENVALERATE | OXADIAZON |
| AZINPHOS-METHYL | ETHOFUMESATE | OXAMYL |
| AZOXYSTROBIN | FENARIMOL | OXYDEMETON-METHYL |
| BENEFIN | FENBUTATIN-OXIDE | OXYFLUORFEN |
| BENSULIDE | FENPROPATHRIN | PARAQUAT DICHLORIDE |
| BENTAZON, SODIUM SALT | FIPRONIL | PARATHION |
| BETA-CYFLUTHRIN | FLUAZIFOP-P-BUTYL | PARATHION, OTHER RELATED |
| BIFENAZATE | FOSETYL-AL | PENDIMETHALIN |
| BIFENTHRIN | GAMMA-CYHALOTHRIN | PERMETHRIN |
| BROMACIL | GLUFOSINATE-AMMONIUM | PERMETHRIN, OTHER RELATED |
| CAPTAN | GLUTARALDEHYDE | PHORATE |
| CAPTAN, OTHER RELATED | GLYPHOSATE | PHOSMET |
| CARBARYL | GLYPHOSATE, DIAMMONIUM SALT | PRODIAMINE |
| CARBOFURAN | GLYPHOSATE, ISOPROPYLAMINE SALT | PROMETRYN |
| CARBOXIN | GLYPHOSATE, MONOAMMONIUM SALT | PROPICONAZOLE |
| CHLOROTHALONIL | GLYPHOSATE, POTASSIUM SALT | PROPYZAMIDE |
| CHLORPYRIFOS | HALOSULFURON-METHYL | PYRAZON |
| CLETHODIM | HEXAZINONE | PYRIDABEN |
| CLOFENTEZINE | HEXYTHIAZOX | RIMSULFURON |
| CLOPYRALID, MONOETHANOLAMINE SALT | IMAZAPYR, ISOPROPYLAMINE SALT | SETHOXYDIM |
| CLOPYRALID, TRIETHYLAMINE SALT | IMIDACLOPRID | SIMAZINE |
| COPPER SULFATE (BASIC) | IPRODIONE | S-METOLACHLOR |
| COPPER SULFATE (PENTAHYDRATE) | ISOXABEN | SPINOSAD |
| CYCLOATE | LAMBDA-CYHALOTHRIN | TEBUFENOZIDE |

| | | |
|--|--------------------------|-------------------------------|
| CYFLUTHRIN | LINURON | THIABENDAZOLE |
| CYMOXANIL | MALATHION | THIOPHANATE-METHYL |
| CYPERMETHRIN | MANCOZEB | THIRAM |
| CYPRODINIL | MANEB | TRIADIMEFON |
| DIAZINON | MCPA, DIMETHYLAMINE SALT | TRICLOPYR, BUTOXYETHYL ESTER |
| DICAMBA | MCPA, ISOOCTYL ESTER | TRICLOPYR, TRIETHYLAMINE SALT |
| DICAMBA, DIMETHYLAMINE SALT | MECOPROP-P | TRIFLUMIZOLE |
| DICAMBA, DIMETHYLAMINE SALT, OTHER RELATED | METAM-SODIUM | TRIFLURALIN |
| DICLORAN | METHIDATHION | VINCLOZOLIN |
| DICOFOL | METHOMYL | |

35. Pesticide Management Practices. Management practices designed to reduce or eliminate pesticide runoff into surface water and groundwater.
36. Point Source. Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which wastes are or may be discharged.
37. Pollutant. The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water, including dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.
38. Quality of the Water. The “chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use” as defined in the California Water Code Sec. 13050(g).
39. Receiving Waters. Surface waters or groundwater that receive or have the potential to receive discharges of waste from irrigated lands.
40. Requirements of Applicable Water Quality Control Plans. Water quality objectives, prohibitions, Total Maximum Daily Load (TMDL) Implementation Plans, or other requirements contained in the Basin Plan, as adopted by the Central Coast Water Board and approved according to applicable law.
41. Riparian Area. Vegetation affected by the surface water or groundwater of adjacent perennial or intermittent streams, lakes or other waterbodies. Vegetation species are distinctly different from adjacent areas or are similar to adjacent areas but exhibit

more vigorous or robust growth forms indicative of increased soil moisture (Dall et. al. 1997, p.3) Dall, D.C., Elliot, and D. Peters. 1997. *A System for Mapping Riparian Areas in the Western United States*. U.S. Fish and Wildlife Service, National Wetlands Inventory. 15 pp.

42. Riparian Buffer. A protection zone surrounding perennial or intermittent channels with riparian vegetation and riparian functions that support beneficial uses and protect water quality.
43. Stormwater. Stormwater runoff, snow melt runoff, and surface runoff and drainage, as defined in 40 CFR 122.26(b)(13).
44. Subsurface Drainage. Water generated by installing drainage systems to lower the water table below irrigated lands. The drainage can be generated by subsurface drainage systems, deep open drainage ditches or drainage wells.
45. Surface Runoff. Precipitation, snow melt, or irrigation water in excess of what can infiltrate the soil surface and be stored in small surface depressions; a major transporter of non-point source wastes in rivers, streams, and lakes.
46. Sustainable Land Management. The use of land and water resources by humans, while ensuring the long-term productive potential of resources, and the maintenance of environmental functions. This definition of sustainable land management includes managing land to maintain ecological processes and biological diversity.
47. Tailwater. Runoff of irrigation water from the lower end of an irrigated field. See also, Irrigation Runoff or Return Flow.
48. Tile Drains. Subsurface drainage which removes excess water from the soil profile, usually through a network of perforated tile tubes installed 2 to 4 feet below the soil surface. This lowers the water table to the depth of the tile over the course of several days. Drain tiles allow excess water to leave the field. Once the water table has been lowered to the elevation of the tiles, no more water flows through the tiles.
49. Total Maximum Daily Load (TMDL). The condition of an impaired surface waterbody (on the Clean Water Act Sec. 303(d) list) that limits the amount of pollution that can enter the waterbody without adversely affecting its beneficial uses, usually expressed as a concentration (e.g., mg/L) or mass (e.g., kg); TMDLs are proportionally allocated among dischargers to the impaired surface waterbody.
50. Waste. "Includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal" as defined in the California Water Code Sec. 13050(d). "Waste" includes

irrigation return flows and drainage water from agricultural operations containing materials not present prior to use. Waste from irrigated agriculture includes *earthen materials* (such as soil, silt, sand, clay, rock), *inorganic materials* (such as metals, salts, boron, selenium, potassium, nitrogen, phosphorus), and *organic materials* such as pesticides.

51. Water Quality Control. The “regulation of any activity or factor which may affect the quality of the waters of the State and includes the prevention and correction of water pollution and nuisance” as defined in the California Water Code Sec. 13050(i).
52. Water Quality Criteria. Levels of water quality required under Sec. 303(c) of the Clean Water Act that are expected to render a body of water suitable for its designated uses. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes. The *California Toxics Rule* adopted by USEPA in April 2000, sets numeric Water Quality Criteria for non-ocean waters of California for a number of pollutants. See also, Water Quality Objectives.
53. Water Quality Objectives. “Limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specified area,” as defined in Sec. 13050(h) of the California Water Code. Water Quality Objectives may be either numerical or narrative and serve as Water Quality Criteria for purposes of Section 303 of the Clean Water Act. Specific Water Quality Objectives relevant to this Order are identified in Tables 1 and 2.
54. Water Quality Standard. Provisions of State or Federal law that consist of the beneficial designated uses or uses of a waterbody, the numeric and narrative water quality criteria that are necessary to protect the use or uses of that particular waterbody, and an anti-degradation statement. Water quality standards includes water quality objectives in the Central Coast Water Board’s Basin Plan, water quality criteria in the California Toxics Rule and National Toxics Rule adopted by USEPA, and/or water quality objectives in other applicable State Water Board plans and policies. Under Sec. 303 of the Clean Water Act, each State is required to adopt water quality standards.
55. Waters of the State. “Any surface water or groundwater, including saline waters, within the boundaries of the State” as defined in the California Water Code Sec. 13050(e), including all waters within the boundaries of the State, whether private or public, in natural or artificial channels, and waters in an irrigation system.
56. Wetland. An area is a wetland if, under normal circumstances, it (1) is saturated by groundwater or inundated by shallow surface water for a duration sufficient to cause anaerobic conditions within the upper substrate; (2) exhibits hydric substrate conditions indicative of such hydrology; and (3) either lacks vegetation or the

vegetation is dominated by hydrophytes. (TAT. 2009) *Technical Memorandum no. 2: Wetland Definition*, Final, Dated June 25, 2009. Produced by the San Francisco Estuary Institute for the Technical Advisory Team for the California Wetland and Riparian Area Protection Policy, California State Water Resources Control Board, Sacramento, CA).

Tables 1A and 1B.

Summary Of Narrative And Numeric Water Quality Objectives For Agricultural Discharges To Surface And Groundwater. Acronyms in the Table are defined in a list at the end of the Table. The water quality objectives indicated by a double asterisk (**) must be met in irrigation runoff per the compliance time schedule contained in the Preliminary Draft Agricultural Order, Part H and are included as individual discharge monitoring requirements (MRP Order No. R3-2010-00XX). All other water quality objectives must be met in receiving waters and generally are included in watershed monitoring requirements (MRP Order No. R3-2010-00XX). This Order anticipates timeframes beyond the term of this Order to achieve water quality objectives in receiving water.

Table 1A. Narrative And Numeric Water Quality Objectives For Surface Water.

| SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative") | BENEFICIAL USE |
|--|-----------------------|
| TOXICITY | |
| Toxicity** <i>(BPGO, III-4)</i> <i>Narrative Objective:</i> All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. <i>Indicators of Narrative Objective:</i> Chemical concentrations in excess of toxic levels for aquatic life including but not limited to the following: Chlorpyrifos 0.025 ug/L Diazinon 0.14 ug/L <i>(Source: Sipmann and Finlayson 2000)</i> | All Surface Waters |
| TOXICANTS | |
| Nutrients | |
| Ammonia**, Total (N) <i>(BPSO, Table 3.3)</i> >30 mg/L NH ₄ -N | AGR |
| Ammonia**, | |

| <p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled “narrative”)</p> | <p align="center">BENEFICIAL USE</p> |
|---|---|
| <p>Un-ionized <i>(BPGO, III-4)</i></p> <p>0.025 mg/L NH₃ as N</p> | <p>All Surface Waters</p> |
| <p>Nitrate** <i>(a. BPSO, Table 3-2 b. BPSO, Table 3-3)</i></p> <p>a. 10 mg/L NO₃-N b. >30 mg/L NO₃-N</p> | <p>a. MUN b. AGR</p> |
| <p>Organics</p> | |
| <p>Chemical Constituents <i>(BPSO, III-5 and Table 3-2)</i></p> <p>Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2.</p> | <p>MUN</p> |
| <p>Chemical Constituents <i>(BPSO, III-5 and Table 3-3)</i></p> <p>Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. Interpretation of adverse effect shall be as derived from the University of California Agricultural Extension Service guidelines provided in Table 3-3.</p> <p>In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4</p> | <p>AGR</p> |
| <p>Chemical Constituents <i>(BPSO, III-10, Table 3-5, Table 3-6)</i></p> <p>Waters shall not contain concentrations of chemical constituents known to be deleterious to fish or wildlife in excess of the limits listed in Table 3-5 or Table 3-6.</p> | <p>COLD, WARM, MAR</p> |
| <p>Oil and Grease <i>(BPGO, III-3)</i></p> <p><i>Narrative Objective:</i> Waters shall not contain oils, greases, waxes, or other similar materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.</p> | <p>All Surface Waters</p> |

| SURFACE WATER QUALITY OBJECTIVE (Source of WQO-Page in Basin Plan) (Objectives are numeric unless labeled “narrative”) | BENEFICIAL USE |
|---|--------------------|
| Organic Chemicals (BPSO, III-5 and Table 3-1) All inland surface waters, enclosed bays, and estuaries shall not contain concentrations of organic chemicals in excess of the limiting concentrations set forth in California Code of Regulations, Title 22, Chapter 15, Article 5.5, Section 64444.5, Table 5 and listed in Table 3-1. | MUN |
| Other Organics (BPGO, III-3) Phenol (BPSO, III-5) Waters shall not contain organic substances in concentrations greater than the following: Methylene Blue Activated Substances < 0.2 mg/L Phenols < 0.1 mg/L Phenol (MUN) ≤ 1.0 µg/L PCB's < 0.3 µg/L Phthalate Esters < 0.002 µg/L | All Surface Waters |
| Metals | |
| Chromium (BOSP, III-12) ≤ 0.01 mg/L | SHELL |
| Cadmium (BPGO, III-11) ≤ 0.03 mg/L in hard water or ≤ 0.004 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO ₃). | COLD, WARM |
| Chromium (BPGO, III-11) ≤ 0.05 mg/L | COLD, WARM |
| Copper (BPGO, III-11) ≤ 0.03 mg/L in hard water or ≤ 0.01 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO ₃). | COLD, WARM |

| SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled “narrative”) | BENEFICIAL USE |
|--|-------------------------|
| Lead <i>(BPGO, III-11)</i> ≤ 0.03 mg/L | COLD, WARM |
| Mercury <i>(BPGO, III-11)</i> ≤ 0.0002 mg/L | COLD, WARM |
| Nickel <i>(BPGO, III-11)</i> ≤ 0.4 mg/L in hard water or ≤ 0.1 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO ₃). | COLD, WARM |
| Zinc <i>(BPGO, III-11)</i> ≤ 0.2 mg/L in hard water or ≤ 0.004 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO ₃). | COLD, WARM |
| CONVENTIONALS | |
| Biostimulatory Substances <i>(BPGO, III-3)</i> <i>Narrative Objective:</i> Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses. <i>Indicators of Narrative Objective:</i> Indicators of biostimulation include chlorophyll-a, dissolved oxygen, phosphorous, and nitrate. Water Board staff estimates that 1 mg/L nitrate is necessary to protect aquatic life beneficial uses from biostimulation. <i>(Source: Central Coast Water Board. April 2009. Central Coast Ambient Monitoring Program Technical Paper: Interpreting Narrative Objectives for Biostimulatory Substances Using the Technical Approach for Developing California Nutrient Numeric Endpoints)</i> | All Surface Waters |
| Boron <i>(BPSO, III-13)</i> Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub- | Specific Surface Waters |

| SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled “narrative”) | BENEFICIAL USE |
|---|-------------------------|
| Basins Objectives range from 0.2 – 0.5 mg/L. | |
| Chloride <i>(BPSO, III-13)</i> Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 150-1400 mg/L. | Specific Surface Waters |
| Color <i>(BPGO, III-3)</i> Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. Coloration attributable to materials of waste origin shall not be greater than 15 units or 10 percent above natural background color, whichever is greater. | All Surface Waters |
| Conductivity <i>(BPSO, III-8, Table 3-3)</i> >3.0 mmho/cm | AGR |
| Dissolved Oxygen (DO) <i>(BPGO, III-2)</i> Mean annual DO \geq 7.0 mg/L Minimum DO \geq 5.0 mg/L | All Ocean Waters |
| Dissolved Oxygen <i>(BPGO, III-4)</i> For waters not mentioned by a specific beneficial use: DO \geq 5.0 mg/L DO Median values \geq 85 percent saturation | All Surface Waters |
| Dissolved Oxygen <i>(BPSO, III-10)</i> DO \geq 7.0 mg/L | COLD, SPWN |
| Dissolved Oxygen <i>(BPSO, III-10)</i> DO \geq 5.0 mg/L | WARM |
| Floating Material <i>(BPGO, III-3)</i> <i>Narrative Objective:</i> | All Surface Waters |

| SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled “narrative”) | BENEFICIAL USE |
|--|---------------------------|
| Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses. | |
| pH** <i>(BPSO, III-10)</i> The pH value shall not be depressed below 7.0 nor above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters. | COLD, WARM, |
| pH** <i>(BPSO, III-10)</i> The pH value shall not be depressed below 7.0 or raised above 8.5 ² . Changes in normal ambient pH levels shall not exceed 0.2 units. | MAR |
| pH** <i>(BPSO, III-5)</i> The pH value shall not be depressed below 6.5 nor above 8.3. | MUN, REC-1, REC-2, AGR |
| Settleable Material <i>(BPGO, III-3)</i> <i>Narrative Objective:</i> Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses. | All Surface Waters |
| Sodium <i>(BPSO, III-13)</i> Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 20-250 mg/L. | |
| Sulfate <i>(BPSO, III-13)</i> Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 10-700 mg/L. | |
| Suspended Sediment <i>(BPGO, III-3)</i> <i>Narrative Criteria:</i> The suspended sediment load and suspended sediment discharge rate of | All Surface Waters |

| <p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled “narrative”)</p> | <p align="center">BENEFICIAL USE</p> |
|---|--|
| <p>surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.</p> | |
| <p>Suspended Material <i>(BPGO, III-3)</i> <i>Narrative Criteria:</i> Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.</p> | <p align="center">All Surface Waters</p> |
| <p>Taste and Odor <i>(BPGO, III-3)</i> <i>Narrative Criteria:</i> Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.</p> | <p align="center">All Surface Waters</p> |
| <p>Temperature** <i>(BPGO, III-3)</i> <i>Narrative Criteria:</i> Natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.</p> | <p align="center">All Surface Waters</p> |
| <p>Temperature** <i>(BPGO, III-4)</i> <i>Narrative Objective:</i> Natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.</p> <p><i>a) Indicators of Narrative Objective for COLD Habitat:</i></p> <p>Coho December - April 48-54 °F 7-DAM³ 56-58 °F 1-DAM</p> <p>May – November 57-63 °F 7-DAM 68-70 °F 1-DAM</p> <p>Steelhead December - April 55-57 °F 7-DAM 56-58 °F 1-DAM</p> | <p align="center">All Surface Waters</p> <p align="center">a) COLD</p> |

| <p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled “narrative”)</p> | <p align="center">BENEFICIAL USE</p> |
|--|---|
| <p>May – November 56-63 °F 7-DAM 70-73 °F 1-DAM <i>(Source: Hicks 2000)</i></p> <p><i>b) Indicators of Narrative Objective for WARM Habitat:</i></p> <p><u>Stickleback</u> Upper optimal limit = 75 °F (This temperature is also the low end of the upper lethal limit for steelhead) <i>(Source: Moyle 1976)</i></p> <p>Note: 7-DAM refers to the rolling arithmetic average of seven consecutive daily maximum temperatures. 1-DAM refers to the highest daily maximum temperature.</p> | <p>b) WARM</p> |
| <p>Temperature** <i>(BPSO, III-10)</i></p> <p>At no time or place shall the temperature be increased by more than 5°F above natural receiving water temperature.</p> | <p>COLD, WARM</p> |
| <p>Total Dissolved Solids (TDS)** <i>(BPSO, III-13)</i></p> <p>Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 10-250 mg/L.</p> | |
| <p>Turbidity** <i>(BPGO, III-3 and WDR R3-2006-0032)</i></p> <p>Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increase in turbidity attributable to controllable water quality factors shall not exceed the following limits in receiving water:</p> <ol style="list-style-type: none"> Five NTU, where natural turbidity is less than 25 NTU Twenty percent, where natural turbidity is between 25 and 50 NTU. Ten NTU, where natural turbidity is between 50 and 100 NTU. Ten percent, where natural turbidity is greater than 100 NTU. | <p>All Surface Waters</p> |
| <p>PATHOGEN INDICATORS</p> | |
| <p>Fecal Coliform <i>(BOSP, III-5)</i></p> <p>Log mean 200 MPN/100mL. Max 400 MPN/100mL.</p> | <p>REC-1</p> |

| SURFACE WATER QUALITY OBJECTIVE (Source of WQO-Page in Basin Plan) (Objectives are numeric unless labeled “narrative”) | BENEFICIAL USE |
|---|-----------------------|
| Fecal Coliform (BOSP,III-10) Log mean 2000 MPN/100mL. Max 4000 MPN/100mL. | REC-2 |
| E. coli (USEPA) Max 235 MPN/100 mL | REC-1 |
| Total Coliform (BOSP,III-12) Median \leq 70/100 MPN/100mL Max 230 MPN/100 mL | SHELL |

Table 1B. Narrative And Numeric Water Quality Objectives For Groundwater.

| GROUNDWATER QUALITY OBJECTIVE (Source of WQO-Page in BP) (Objectives are numeric unless labeled “narrative”) | BENEFICIAL USE |
|---|-----------------------|
| TOXICANTS | |
| Chemical Constituents (BPSO, III-14) Groundwaters shall not contain concentrations of chemical constituents in excess of federal or state drinking water standards. | MUN |
| Chemical Constituents (BPSO, III-14 and Tables 3-3 and 3-4) Groundwaters shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use. Interpretation of adverse effect shall be as derived from the University of California Agricultural Extension Service guidelines provided in Table 3-3. In addition, water used for irrigation and livestock watering shall not exceed the concentrations for those chemicals listed in Table 3-4. | AGR |

| GROUNDWATER QUALITY OBJECTIVE <i>(Source of WQO-Page in BP)</i> (Objectives are numeric unless labeled “narrative”) | BENEFICIAL USE |
|--|-----------------------------|
| Total Nitrogen <i>(BPSO, III-15 and Table 3-8)</i> Groundwater Basin Objectives for Median values range from 1-10 mg/L as N. | Specific Groundwater Basins |
| CONVENTIONALS | |
| Total Dissolved Solids (TDS) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 100-1500 mg/L TDS. | Specific Groundwater Basins |
| Chloride (Cl) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 20-430 mg/L Cl. | Specific Groundwater Basins |
| Sulfate (SO₄) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 10-1025 mg/L SO ₄ . | Specific Groundwater Basins |
| Boron (B) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 0.1-2.8 mg/L B. | Specific Groundwater Basins |
| Sodium (Na) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 10-730 mg/L. | Specific Groundwater Basins |

Acronyms:

BP = Basin Plan or Water Quality Control Plan for the Central Coast Region

BPGO = Basin Plan General Objective

BPSO = Basin Plan Specific Objective related to a designated beneficial use

TMDL = Specific Objective related to an adopted Total Maximum Daily Load

WDR = Waste Discharge Requirements

SB = State Board established guideline

USEPA = US Environmental Protection Agency
CCAMP = Central Coast Ambient Monitoring Program
SWAMP = Surface Water Ambient Monitoring Program
MCL = Maximum Contaminant Level, California drinking water standards set forth in California Code of Regulations, Title 22.
NTU = Nephelometric Turbidity Unit
mg/L = milligram/Liter
MPN = Most Probable Number

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

ORDER NO. R3-2010-00XX

**TERMS AND CONDITIONS
FOR
CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES FROM IRRIGATED LANDS**

Attachment B to Order No. R3-2010-00XX contains the terms and conditions of the *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands* (Order). This Order conditionally waives waste discharge requirements (WDRs) and reports of waste discharge (ROWDs) for individual discharges of waste from irrigated lands to waters within the Central Coast Region that comply with the conditions of this Order. Attachment A of Order No. R3-2010-00XX lists applicable plans, policies, regulations, and definitions of terms used in Order No. R3-2010-00XX. This Order establishes terms and conditions with which Dischargers must comply to obtain coverage under and to be in compliance with the Order. Order No. R3-2010-00XX defines “Discharger(s)” as the owner and operator of irrigated lands that discharge or have the potential to discharge waste that could directly or indirectly reach waters of the State and affect the quality of any surface water or groundwater. Order No. R3-2010-00XX defines “discharges of waste from irrigated lands” as including surface discharges, such as irrigation return flows, tailwater, drainage water, subsurface drainage generated by irrigating crop land or by installing and operating drainage systems to lower the water table below irrigated lands (tile drains), stormwater runoff flowing from irrigated lands, stormwater runoff conveyed in channels or canals resulting from the discharge of waste from irrigated lands, runoff resulting from frost control, and/or operational spills containing waste.

Dischargers must comply with the following conditions:

Part A. General Provisions

1. Dischargers must comply with all conditions of this Order, including timely submittal of all technical reports specified in Part C. Technical Reports. Violations may result in enforcement action under the California Water Code (Water Code), including Central Coast Regional Water Quality Control Board (Central Coast Water Board) orders, or termination of coverage under this Order.

2. Dischargers must comply with the Central Coast Region Water Quality Control Plan (Basin Plan) and all other applicable water quality control plans as identified in Attachment A. <CLARIFICATION OF EXISTING>
3. Dischargers must take all reasonable steps to prevent any discharge in violation of this Order.
4. Dischargers must not (a) cause, (b) have a reasonable potential to cause, or (c) contribute to an excursion above or outside the acceptable range for any Regional, State, or Federal numeric or narrative water quality standard identified in Attachment A, so as to assure the protection of all actual or designated beneficial uses of waters of the State, per the time schedule described in Part H of this Attachment B to the Order. In addition, per Resolution 68-16 (Anti-Degradation Policy), Dischargers must not discharge waste to receiving water that will result in degradation of existing high quality water. Dischargers must implement management practices to meet applicable water quality standards in receiving water, or maintain existing water quality, whichever is more stringent.
5. Dischargers must not cause or contribute to conditions of pollution or nuisance as defined in Water Code Section 13050.
6. Agricultural discharges percolated into groundwater must be of such quality at the point where they enter the ground to assure the protection of all actual or designated beneficial uses of all groundwaters.
7. Dischargers must comply with applicable Total Maximum Daily Loads (TMDLs), including any plan of implementation for the TMDL, commencing with the effective date or other date for compliance stated in the TMDL. A list of TMDLs adopted by the Central Coast Water Board is available on the Central Coast Water Board website at: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/index.shtml.
8. Dischargers must develop and implement a Farm Water Quality Management Plan (Farm Plan). The Farm Plan must identify and focus on the water quality impacts associated with the specific operation and watershed or subwatershed, based on water quality data from Individual Discharge Monitoring and/or Watershed Monitoring. Farm Plans must identify the management measures the Discharger is implementing to achieve compliance with this Order, a schedule for implementation and verification monitoring to evaluate progress towards compliance with this Order. Specifically, the Farm Plan must identify management practices the grower is implementing to comply with this Order, including the following: addressing irrigation management, pesticide management, nutrient management, salinity management, sediment and erosion control, and aquatic habitat protection.
<CLARIFICATION OF EXISTING>

9. Dischargers must update their Farm Plans at least annually with monitoring and site evaluation results, and specific adjustments in response to any results that indicate unacceptable progress (e.g., do not meet interim milestones identified in this Order). <NEW>
10. Dischargers must submit the Farm Plan or requested elements of the Farm Plan within 30 days of written notice by the Executive Officer. <NEW>
11. Objectionable odors due to the storage of wastewater and/or stormwater shall not be perceivable beyond the limits of the property owned or operated by the Discharger.
12. Dischargers must maintain in good working order and operate as efficiently as possible any facility or control system, including management practices and monitoring devices installed or used to achieve compliance with this Order. <NEW>
13. **Within 3 months** from adoption of this Order and prior to initiating discharge monitoring, Dischargers must submit a Quality Assurance Project Plan (QAPP) and Sampling and Analysis Plan (SAP) for Executive Officer approval as specified in the Monitoring and Reporting Program (MRP) Order No. R3-2010-00XX. To reduce costs for individual Dischargers, Dischargers may utilize QAPPs and SAPs prepared by a third-party and approved by the Executive Officer (e.g. Cooperative Monitoring Program, if applicable). <NEW>
14. Dischargers must conduct waste specific monitoring and reporting that includes Individual Discharge Characterization Monitoring, Individual Discharge Monitoring, Watershed (receiving water) Monitoring, and Additional Monitoring, as required by the Executive Officer (receiving water and/or discharge) per MRP Order No. R3-2010-00XX. In addition, Dischargers must submit a plan to monitor groundwater quality in agricultural areas to evaluate long term trends in groundwater quality and protection of beneficial uses, including drinking water. The specific waste constituents to be monitored are set forth in MRP Order No. R3-2010-00XX. To reduce costs for individual Dischargers, Dischargers may elect to conduct monitoring and reporting by participating in a monitoring program conducted by a third-party and approved by the Executive Officer (e.g. Cooperative Monitoring Program (CMP), if applicable). Per MRP Order No. R3-2010-00XX, Dischargers must conduct monitoring as follows: <NEW>
 - a. *Individual Discharge Characterization Monitoring* – Used to characterize the type and nature of non-stormwater discharges to surface water and groundwater from individual agricultural operations (including type of discharge, flow or volume of discharge, frequency of discharge, concentration or load of wastes in discharge in comparison to water quality standards and receiving water quality). Individual Discharge Characterization Monitoring is also used to evaluate the need for one time and/or continuous Individual Discharge Monitoring.

- b. *Individual Discharge Monitoring* – Used to monitor discharges of waste from individual agricultural operations and assess compliance with applicable water quality standards for the protection of water quality and associated beneficial uses.
 - c. *Watershed Monitoring* – Used to monitor discharges of waste in stormwater runoff from agricultural operations and associated impacts to receiving water. Watershed Monitoring is also used monitor and assess long term water quality trends in agricultural watersheds, and monitor and assess the protection of beneficial uses, including aquatic habitat.
 - d. *Additional Monitoring* - Used to provide more detailed monitoring and assessment to further characterize and identify specific sources and causes of water quality impairment.
15. Dischargers must submit a plan to monitor groundwater quality in agricultural areas to evaluate long-term trends in groundwater quality and protection of beneficial uses, including drinking water <NEW>.
16. The Executive Officer may postpone individual reporting of Individual Discharge Monitoring data (including but not limited to irrigation runoff and percolation to groundwater) in cases where all Dischargers in a watershed or subwatershed are achieving collective progress towards compliance and meeting milestones (e.g. tailwater reduction or elimination) per the defined time schedule. In this case, Dischargers must report individual monitoring data collectively as a group (including average, minimum, and maximum values for flow volume and waste concentrations or loads). <NEW>
17. Consistent with Water Code Section 13267, Dischargers must furnish the Central Coast Water Board, within a reasonable time, technical reports that the Executive Officer may request to determine compliance with this Order.
18. Pursuant to Water Code Section 13267(c), Central Coast Water Board or its authorized representatives may (a) enter upon the Discharger's premises where a regulated operation or activity is located or conducted; (b) inspect or photograph any operation or activity pertinent to this Order, (c) have access to and copy any records pertinent to this Order; and (d) sample or monitor to determine compliance with this Order. The inspection may be made with the consent of the owner or possessor of the facilities, or if consent is withheld, with a duly issued warrant. <CLARIFICATION OF EXISTING>
19. This Order is not transferable to any person except after notice to and approval by the Executive Officer. <NEW>

20. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code Sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. Sections 1531 to 1544). If a "take" will result from any action authorized under this Order, the Dischargers must obtain authorization for an incidental take prior to construction or operation of the project. Dischargers must be responsible for meeting all requirements of the applicable Endangered Species Act. <NEW>

Part B. Discharge Prohibitions

21. The discharge of waste that (a) causes, (b) has a reasonable potential to cause, or (c) contributes to an excursion above or outside the acceptable range for any Regional, State, or Federal numeric or narrative water quality standard is prohibited, so as to assure the protection of all actual or designated beneficial uses of waters of the State. <CLARIFICATION OF EXISTING>
22. The discharge of waste that results, or has reasonable potential to result in degradation of existing high quality water is prohibited <NEW>.
23. The discharge of waste that creates conditions of pollution or nuisance as defined in Water Code Sections 13050(l) and 13050(m) is prohibited.
24. The discharge of any waste not specifically regulated by the Order described herein is prohibited unless the Discharger complies with Water Code Section 13260(a) and the Central Coast Water Board either issues WDRs pursuant to Water Code Section 13263 or an individual waiver pursuant to Water Code Section 13269 or the conditions specified in Water Code Section 13264(a) have occurred. Waste specifically regulated by this Order includes earthen materials, such as soil, silt, sand, clay, and rock; inorganic materials, such as metals, plastics, salts, boron, selenium, potassium, and nitrogen; and organic materials, such as organic pesticides, that enter or have the potential to enter into waters of the State. <NEW>
25. The discharge of any waste at a location or in a manner different from that described in the approved Notice of Intent (NOI) is prohibited. <NEW>
26. The discharge of waste to groundwater with the beneficial use of municipal or domestic water supply in excess of maximum contaminant levels (MCLs) for primary and secondary drinking water standards established by the United States Environmental Protection Agency (USEPA) or California Department of Public Health (CDPH), whichever is more stringent, is prohibited. <CLARIFICATION OF EXISTING>

27. Excessive use or over-application of fertilizer in excess of crop needs is prohibited. <NEW>
28. The discharge of agricultural rubbish, refuse, irrigation tubing, or other solid wastes into surface waters or at any place where they may contact or may be eventually discharge to surface waters is prohibited. < NEW>
29. The discharge of wastes from point sources to waters of the United States subject to Clean Water Act Sections 301, 402 (NPDES), or 404 (dredge and fill) is prohibited.
30. The application of any chemical directly to surface waterbodies designated in the Basin Plan, including chemicals used for the purposes of breaking down applied pesticides or reducing associated toxicity, is prohibited, unless approved by the Central Coast Water Board. Any such chemical used for this purpose in irrigation systems must have documented effectiveness and must not result in further impact to water quality or aquatic habitat, and must not result in negative ecological impacts. <NEW>
31. Degradation of existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitat that results or has the potential to result in erosion and discharges of waste to waters of the State is prohibited, unless authorized by the Central Coast Water Board. Degradation of aquatic habitats results from human activities that result in water quality impairment and make habitats less suitable or less available to aquatic life, such as removal of riparian vegetation, channel clearing, creation of bare dirt areas, and hydromodification. <NEW>

Part C. Technical Reports

All technical reports submitted pursuant to the Order are required pursuant to Water Code Section 13267. Failure to submit technical reports in accordance with schedules established by the Order and/or the attachments, or failure to submit a complete technical report (i.e. of sufficient technical quality to be acceptable to the Executive Officer), may subject the Discharger to enforcement action pursuant to Water Code Section 13268.

Notice of Intent (NOI) and Acreage Updates <CLARIFICATION OF EXISTING>

32. Dischargers seeking authorization to discharge under this Order must submit a completed NOI to the Central Coast Water Board in a manner set forth in this Attachment B or as revised by the Executive Officer. Upon receipt of a Notice of Enrollment (NOE) approved by the Executive Officer the Discharger will be subject to this Order. The NOI form is included at the end of this Attachment B.

- a. The NOI must contain all the information requested in a format as determined by the Executive Officer;
- b. The NOI must identify the property covered by enrollment, landowner(s), operator(s) and other representative(s) authorized to sign reports submitted on behalf of the Discharger;
- c. The NOI must include a statement of understanding of the requirements of this Order signed by both the landowner(s) and operator(s). <NEW>
- d. The NOI must identify the ranch location, including a detailed map of the ranch area. The map(s) must identify the points where wastes as described in this Order are discharged from irrigated lands, location of proximal surface waterbodies, groundwater wells, tiledrains, and existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitats. <CLARIFICATION OF EXISTING>
- e. The NOI must identify if the operation can be classified as a “**Low-Risk Discharge**” by: <CLARIFICATION OF EXISTING>
 1. Obtaining the Central Coast Vineyard Team (CCVT) Sustainability in Practice (SIP) certification, or
 2. By demonstrating that the Discharger meets all of the following criteria:
 - a. Eliminates all tailwater;
 - b. Does not farm adjacent to or in close proximity (within 1000 feet) to an impaired surface waterbody identified on the Clean Water Act Section 303(d) List of Impaired Waterbodies for the Central Coast Region (Impaired Waters List);
 - c. Demonstrates effective use of integrated pest management techniques and does not use pesticides identified in Attachment A (or elsewhere) as having a high potential to degrade/pollute surface water;
 - d. Demonstrates effective use of a nutrient management plan certified by a XXX *{Note: Appropriate professional certification, such as Certified Crop Advisor (CCA) or other certification with similar expertise and experience}* to be protective of water quality (e.g. will not contribute to an exceedance of water quality standards); and
 - e. Demonstrates effective use of stormwater control measures to minimize erosion and sediment deposition using best practicable treatment or control.
- f. The NOI must identify the following: <NEW, CLARIFICATION OF EXISTING>
 1. Crops grown;

2. Chemicals (pesticides, fertilizers, etc.) applied in a manner that may result in the material coming in contact with irrigation water, stormwater, surface water, or groundwater;
 3. Irrigation system type;
 4. Nitrate concentration in irrigation source water;
 5. A description of the nature of any discharges (presence and volume of tailwater, tiledrains utilized, containment structures, subsurface drainage collection systems, etc.)
 6. Management practices implemented to eliminate or minimize the discharges of waste to water which may impair water quality;
 7. Backflow prevention devices on groundwater wells;
 8. Other information as requested by the Executive Officer
- g. Dischargers must ensure that key operating and site management personnel comply with the Order, Notice of Intent (NOI), and Farm Plan. In addition, Dischargers must maintain a copy of such documents at the operation for reference by operating personnel and inspection by Central Coast Water Board staff. <CLARIFICATION OF EXISTING>
- a. In the event of a change in control or ownership of an operation presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner and operator of the existence of this Order by letter, and forward a copy the letter to the Executive Officer **immediately**.
- i. Dischargers already enrolled in the 2004 Order must submit an updated 2010 NOI **within 60 days** of the adoption of this Order. <NEW>
- j. Any Discharger acquiring control or ownership of an existing operation must submit a new NOI **within 60 days** of acquiring control or ownership of an operation. <CLARIFICATION OF EXISTING>
- k. Any Discharger proposing to control or own a new operation that has the potential to discharge waste that could directly or indirectly reach waters of the State and affect the quality of any surface water or groundwater must submit an NOI **prior to any discharge or commencement of activities that may cause a discharge**, including land preparation prior to crop production . <NEW>
- l. Dischargers who do not enroll in the Order in a timely manner as specified in this Order may be subject to WDRs and must submit a ROWD for consideration by the Executive Officer.
33. Dischargers must submit an Acreage Update form on **January 1, 2012** and annually thereafter. The Acreage Update form is included at the end of Attachment B. The purpose of the Acreage Update form is to keep the Central Coast Water Board

records up-to-date about Discharger and ranch information represented on the NOI. The Acreage Update form must contain all the information requested in a format as approved by the Central Coast Water Board Executive Officer;

Notice of Termination (NOT)

34. If a Discharger wishes to terminate coverage under the Order, the Discharger must submit a completed Notice of Termination (NOT) **immediately**. The NOT form is included at the end of this Attachment B. Termination from coverage will occur on the date specified in the NOT, unless specified otherwise. All discharges, as defined in Attachment A must cease before the date of termination, and any discharges on or after the date of termination shall be considered in violation of the Order, unless other Waivers of WDRs, General WDRs, or individual WDRs cover the discharge.
- <NEW>

Farm Water Quality Management Plan (Farm Plan)

35. Dischargers must develop and implement a Farm Plan. The Farm Plan must identify and focus on the water quality impacts associated with the specific operation and water quality impairments at the watershed or subwatershed, based on water quality data from individual discharge monitoring and/or watershed scale monitoring. Farm Plans must identify the management measures the Discharger is implementing to meet water quality standards, maintain existing high quality water, and achieve compliance with this Order, including any management practice requirements identified in Part E of this Attachment B to the Order, a schedule for implementation and verification monitoring to evaluate progress towards compliance with this Order. Specifically, the Farm Plan must identify management practices the grower is implementing to comply with this Order, including: <CLARIFICATION OF EXISTING>
- a. Irrigation Management: Maximize irrigation efficiency and management to effectively eliminate or minimize irrigation runoff and tailwater discharges using best practicable treatment or control;
 - b. Pesticide Management: Maximize integrated pest management to eliminate or minimize toxic discharges and discharges of pesticides and herbicides to meet water quality standards using best practicable treatment or control;
 - c. Nutrient Management: Maximize effective nutrient budgeting and management to eliminate or minimize discharge of nutrients to meet nutrient and biostimulatory water quality standards using best practicable treatment or control;
 - d. Salinity Management: Maximize salinity management to eliminate or minimize discharge and leaching of salts to meet salt water quality standards using best practicable treatment or control;
 - e. Sediment and Erosion Control: Maximize sediment and erosion control and stormwater management to eliminate or minimize discharge of sediments and

- turbidity to meet water quality standards using best practicable treatment and control;
- f. Aquatic Habitat Protection: Maximize protection of existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitat using buffers to minimize degradation of aquatic habitat and impacts to aquatic life beneficial uses using best practicable treatment and control;
36. The Farm Plan must include a schedule to effectively implement management practices to eliminate or minimize discharges of waste and achieve the requirements of this Order and applicable water quality standards, to assure the protection of all actual or designated beneficial uses of waters of the State. <CLARIFICATION OF EXISTING>
37. Dischargers must update Farm Plans at least annually with monitoring and site evaluation results, and specific adjustments in response to any results that measure progress towards water quality improvement and compliance with this Order (e.g., interim milestones identified in Part H). <NEW>
38. Pursuant to Water Code Section 13267, the Executive Officer may, at any time, require Dischargers to submit Farm Plans or specific modifications to Farm Plans.
39. The Discharger (including the landowner and operator) or a representative authorized by the Discharger must sign technical reports submitted to comply with the Order. <CLARIFICATION OF EXISTING>
40. Any person signing a report submitted as required by the Order must make the following certification:
- “In compliance with Water Code Section 13267, I certify under penalty of perjury that this document and all attachments were prepared by me, or under my direction or supervision following a system designed to assure that qualified personnel properly gather and evaluate the information submitted. To the best of my knowledge and belief, this document and all attachments are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”*
41. Per MRP Order No. R3-2010-00XX, the Discharger must submit monitoring results and reporting based on sample analyses conducted according to test procedures approved by USEPA (40 CFR Part 136), authorized by the Executive Officer or otherwise indicated in this Order. Dischargers must identify any discharges that exceed applicable water quality standards. <NEW>
42. The Discharger or a third party approved by the Executive Officer must report water quality data to the Central Coast Water Board that is certified by a State registered professional engineer, registered geologist, State certified laboratory or approved third-party. Surface water quality data must be submitted in a format that is compatible with the Central Coast Ambient Monitoring Program (CCAMP), or as

directed by the Executive Officer. Groundwater quality data must be submitted in a format approved by the Executive Officer and compatible with the electronic deliverable format (EDF) used by the State Water Board's Geotracker data management system, or as directed by the Executive Officer. <NEW>

Part D. Water Quality Standards

43. Applicable water quality standards are identified in detail in Attachment A. <CLARIFICATION OF EXISTING>

Part E. Management Practice Implementation Requirements

44. Dischargers must implement management practices to eliminate the discharge of wastes to waters of the State, or achieve treatment or control of the discharge that will reduce wastes in the discharges and that will achieve compliance with applicable water quality standards, protect the beneficial uses of waters of the State, and prevent nuisance.
45. Dischargers must identify, select, and effectively implement management practices to meet water quality standards, maintain existing high quality water, and achieve compliance with this Order, including any management practice requirements. Dischargers must address the priority water quality impacts associated with their specific operation and/or priority water quality impairments associated with a specific watershed or sub-watershed as identified in their Farm Plan. Specific management practice requirements associated with specific water quality issues are identified below. Based on the specific water quality impacts associated with an operation or priority water quality impairments associated with a specific watershed or sub-watershed, Dischargers must implement all or a subset of the identified strategies below, or alternative strategies that achieve a similar outcome to eliminate or minimize the discharge of waste to meet water quality standards and maintain existing high quality water, using best practicable treatment or control. Dischargers are encouraged to collaborate and coordinate management measures to lower costs and achieve compliance on local, regional, or watershed scales. <CLARIFICATION OF EXISTING>

Irrigation Management <NEW>

46. The purpose of the irrigation management element of the Farm Plan is to eliminate irrigation runoff and tailwater discharges or reduce their volume to meet water quality standards and maintain existing high quality water using best practicable treatment or control, and to assure compliance with this Order. The irrigation management element of the Farm Plan must include, but is not limited to:

- a. Detailed map of the ranch area identifying the points where wastes as described in the Order are discharged from irrigated lands and identifying waterbodies receiving the discharge;
 - b. Type of irrigation system, distribution efficiency and distribution uniformity;
 - c. Average total water demand per crop;
 - d. Total water applied per crop;
 - e. The schedule, duration and frequency of irrigation events;
 - f. Evaluation of the potential for irrigation runoff and water quality impairment;
 - g. Evaluation of the potential for percolation of irrigation water below the root zone;
 - h. Identification of planned irrigation management practices (such as irrigation system and distribution uniformity upgrades, irrigation scheduling, water recycling and tailwater recovery);
 - i. Schedule for implementation to achieve compliance with this Order including compliance time schedules and interim milestones;
 - j. Progress towards interim milestones identified in Part H;
47. Dischargers must install and maintain the irrigation system to minimize or eliminate irrigation runoff and deep percolation to groundwater beyond the root zone that may transport waste constituents from irrigated lands to waters of the State. At a minimum, the irrigation system distribution uniformity must be designed and operated to achieve the following efficiencies: 0.70 for furrow, 0.75 for hand-move sprinkler, 0.80 for solid sprinkler systems, 0.85 for drip and micro-sprinkler systems; or alternative methods to achieve irrigation efficiency to eliminate or minimize irrigation runoff and discharge of waste using best practicable treatment and control.
48. Dischargers must implement appropriate irrigation scheduling duration and frequency, in consideration of weather factors such as wind and precipitation, to minimize or eliminate the discharge of irrigation runoff and to minimize deep percolation of water below the root zone using best practicable treatment and control.
49. Dischargers must maintain the irrigation delivery system to eliminate operational spills such as overflows from standing pipes or water remaining from previously operated gravity flow delivery systems.
50. **Within 2 years** from the adoption date of this Order, all Dischargers adjacent to, in close proximity to (within 1000 feet), or otherwise discharging to an impaired surface waterbody identified on the Impaired Waters List, or discharging to tributaries to such waterbodies, must implement management practices sufficient to eliminate irrigation runoff from their farming operation. Alternatively, Dischargers may provide water quality data and information per MRP Order No. R3-2010-00XX to demonstrate that any irrigation runoff has been sufficiently treated or controlled to meet water quality standards for the specific impairment or is of sufficient quality

where it will not cause or contribute to exceedances or excursions of any water quality standards in waters of the State.

51. Dischargers that discharge irrigation runoff to tile drains must report that discharge in their NOI. In addition, Farm Plans must describe the tile drain discharges and the management measures Dischargers will implement to assure the tile drain discharges are in compliance with this Order. Dischargers are encouraged to coordinate the implementation of management practices with other Dischargers discharging to common tile drains, including efforts to develop regional salt and nutrient management plans. The Executive Officer may require additional monitoring and reporting for discharges to tile drains as necessary to achieve compliance with this Order. .
52. Dischargers that install or construct containment structures for the purposes of storing or treating irrigation water must report such structures in their NOI, and construct and maintain such structures to avoid percolation of waste to groundwater and to avoid surface water overflows that have the potential to impair water quality.

Pesticide Runoff/Toxicity Elimination <NEW>

53. **Within 2 years** from the adoption date of this Order, all Dischargers adjacent or in close proximity (within 1000 feet) to any surface waterbody (creek, stream, river, slough, lake, pond, or other body of water) designated in the Basin Plan, or to tributaries to such waterbodies must implement management practices sufficient to eliminate toxicity in irrigation runoff or eliminate the discharge of irrigation runoff from their farming operation. Alternatively, Dischargers may provide water quality data and information per MRP Order No. R3-2010-00XX to demonstrate that any irrigation runoff has been sufficiently treated or controlled to achieve toxicity water quality standards, or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to exceedances of any toxicity water quality standards in waters of the State.
54. The purpose of the pesticide management element of the Farm Plan is to eliminate toxicity in discharges and surface water, to eliminate or minimize the discharge of pesticides to meet water quality standards using best practicable treatment or control, and to assure compliance with this Order. The pesticide management element of the Farm Plan must include, but is not limited to, the following:
 - a. Location of the cropped area and the identification of the crop and pest(s) to be treated;
 - b. For each of those crops/pests: the crop stage, frequency, and method of counting the pest and any natural enemies, to be used in a monitoring (scouting) program, or a description of the pest predictive model, such as degree-days, to be used;
 - c. Scouting records to show the levels of the pest and any natural enemies monitored, or relevant model results;

- d. Treatment thresholds or the treatment decision making process to be used, and any treatment timing guidelines;
- e. For crops covered by a University of California (UC) Year-Round Integrated Pest Management (IPM) Program, a filled out up-to-date annual IPM checklist pertaining to the pest to be treated;
- f. For crops not covered by a UC Year Round IPM Program, use of the UC IPM Pest Management Guidelines, if available;
- g. Identification of pesticides used at the operation, including those identified in Attachment A of this Order as having a high potential to degrade/pollute surface water;
- h. Identification of any chemicals (e.g. Landguard) proposed to be used for the purposes of breaking down applied pesticides or reducing associated toxicity;
- i. Identification of planned pesticide management practices to eliminate or minimize toxicity and the discharge pesticides;
- j. Schedule for pesticide management practice implementation;
- k. Progress towards interim milestones identified in Part H;

55. Dischargers using pesticides with a high potential to degrade/pollute surface water (identified in Attachment A of this Order) and persons performing pest control using such pesticides for the Discharger, must comply with the following conditions to protect surface water from pesticide drift, in compliance with any existing pesticide use regulation: <NEW>

- a. Ground applications must not be made within 50 feet of any surface waterbody;
- b. Airblast, high-pressure wand or hand gun applications must not be made within 100 feet of any surface waterbody;
- c. Aerial applications must not be made within 150 feet of any surface waterbody;

56. Dischargers must not apply any chemical directly to surface waterbodies designated in the Basin Plan, including chemicals used for the purposes of breaking down applied pesticides or reducing associated toxicity (e.g. Landguard), unless approved by the Central Coast Water Board. Any such chemical used for this purpose in irrigation systems must have documented effectiveness and must not result in further impact to water quality or aquatic habitat, and must not result in negative ecological impacts. <NEW>

Nutrient and Salt Management <NEW>

57. **Within 4 years** from the adoption of this Order, all Dischargers adjacent or in close proximity (within 1000 feet) to any surface waterbody (creek, stream, river, slough, lake, pond, or other body of water) designated in the Basin Plan, or to tributaries to such waterbodies must implement management practices sufficient to eliminate nutrients and salts to meet water quality standards in irrigation runoff or eliminate the discharge of irrigation runoff from their farming operation. Alternatively, Dischargers

may provide water quality data and information per MRP Order No. R3-2010-00XX to demonstrate that any irrigation runoff has been sufficiently treated or controlled to achieve nutrient and salt water quality standards, or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to exceedances of any nutrient or salt water quality standards in waters of the State.

58. **Within 6 years** from adoption of this Order, all Dischargers must implement management practices sufficient to eliminate or minimize nitrate and salt in groundwater discharges to meet water quality standards. Alternatively, Dischargers may provide water quality data and information per MRP Order No. R3-2010-00XX to demonstrate that any discharge has been sufficiently treated or controlled to meet nitrate and salt water quality standards or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to additional loading of waste or exceedances of any nitrate or salt water quality standards in waters of the State.
59. The purpose of the nutrient management element of the Farm Plan is to eliminate or minimize nutrient discharges to groundwater and surface water to meet water quality standards using best practicable treatment or control, and to assure compliance with this Order. The nutrient management element of the Farm Plan must be certified by a XXX *{Note: Appropriate professional certification, such as Certified Crop Advisor (CCA) or other certification with similar expertise and experience}* to be protective of water quality (e.g. will not result in an exceedance of surface water quality standards or additional loading of waste constituents to groundwater per the required time schedule).
60. The nutrient management element of the Farm Plan must include, but is not limited to, the following:
- a. Average total crop nutrient demand and method(s) of determination per crop;
 - b. Average total water demand per crop and total water applied per crop;
 - c. Monthly record of fertilizer applications per crop, including fertilizer type and quantity applied (including but not limited to fertilizers, compost, manure, and humic acids);
 - d. Nitrate concentration of irrigation source water;
 - e. Timing of fertilizer application to maximize crop uptake, (6) an evaluation of fertilizer handling and storage activities;
 - f. Estimation of the amount of fertilizer applied in excess of crop needs, if applicable;
 - g. Estimation of excess or residual fertilizer/nutrients in the root zone at the end of the crop growing season;
 - h. Identification of planned nutrient management practices (such as irrigation efficiency, nutrient budgeting, and nutrient trapping) to eliminate or minimize nutrients in irrigation runoff or percolation to groundwater;
 - i. Identification of planned management practices related to fertilizer handling, storage, disposal, and management to prevent pollution;
 - j. Schedule for implementation;

k. Progress towards interim milestones identified in Part H;

61. Dischargers that use leaching to control salt in the soil profile must not cause or contribute to exceedance of water quality standards. Leaching must not be performed to wash nitrate based salts from the soil profile. The Farm Plan must describe leaching management practices and assure compliance with this Order.
62. Dischargers must cease all foliar fertilizer applications a minimum of 72 hours before any forecasted rain event and up to 72 hours after a rain event has occurred.
63. Dischargers must implement proper handling, storage, disposal and management of fertilizer to prevent discharge of waste to waters of the State.

Sediment Management / Erosion Control / Stormwater Management <NEW>

64. **Within 3 years** from the adoption of this Order, all Dischargers adjacent or in close proximity (within 1000 feet) to any surface waterbody (creek, stream, river, slough, lake, pond, or other body of water) designated in the Basin Plan or to tributaries to such waterbodies must implement management practices sufficient to eliminate or minimize sediment and turbidity to meet water quality standards in irrigation runoff or eliminate the discharge of irrigation runoff from their farming operation. Alternatively, Dischargers may provide water quality data and information per MRP Order No. R3-2010-00XX to demonstrate that any irrigation runoff has been sufficiently treated or controlled to meet sediment and turbidity water quality standards or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to exceedances of any sediment or turbidity water quality standards in waters of the State.
65. The purpose of the erosion control and sediment management element of the Farm Plan is to maximize sediment and erosion control and stormwater management to eliminate or minimize discharge of sediments and turbidity to meet water quality standards using best practicable treatment and control, and to assure compliance with this Order. Dischargers are encouraged to coordinate the implementation of stormwater management practices with other Dischargers in the watershed or subwatershed to maximize water quality protection and reduce costs. The sediment management element of the Farm Plan must include, but is not limited, the following:
 - a. The identification and implementation of management practices to eliminate or minimize the discharge of sediments by (1) controlling erosion, (2) reducing soil detachment, (3) reducing sediment transport, and (4) trapping sediments.
 - b. Management practices that will be implemented to achieve the following: (1) maintain crop residue or vegetative cover on the soil; (2) improve soil properties; reduce slope length, steepness, or unsheltered distance; reduce effective water and/or wind velocities;
 - c. Erosion control management measures that reduce or prevent sheet and rill erosion, wind erosion, concentrated flow, streambank erosion, soil mass

- movements, road bank erosion, construction site erosion, and irrigation-induced erosion;
- d. Specific stormwater management measures;
- e. Schedule for implementation;
- f. Progress towards interim milestones identified in Part H;

Aquatic Habitat Protection <NEW>

66. The purpose of the aquatic habitat protection element of the Farm Plan is to maximize protection of existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitat using buffers to eliminate or minimize degradation of aquatic habitat and discharge of waste, to meet water quality standards and protect aquatic life beneficial uses using best practicable treatment or control, and to assure compliance with this Order. The aquatic habitat protection element of the Farm Plan must include the following:
- a. Maps locating and photo documentation of existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitat located on ranch property;
 - b. Maps and photo documentation of the presence of minimum buffer widths as specified in Table 3, per the time schedule and milestones in Part H;
 - c. Annual photo documentation that verifies the ongoing protection of existing perennial, intermittent, or ephemeral streams, riparian and wetland area habitats;
 - d. Identification of management measures implemented to protect or restore aquatic habitat;
 - e. Implementation of aquatic habitat requirements in Part G, including the development of a *Riparian Function Protection and Restoration Plan, if applicable*;
 - f. Schedule for implementation;
 - g. Progress towards interim milestones identified in Part H;

Commercial Nursery, Nursery Stock Production and Greenhouse Requirements <NEW>

67. Dischargers who own or operate commercial nurseries, nursery stock production and greenhouse operations that have point-source discharges as defined in Clean Water Act, and fully contained greenhouse operations (those that have no groundwater discharge due to impervious floors) are not covered under this Order and must apply for individual WDRs.
68. Dischargers who own or operate commercial nurseries, nursery stock production and greenhouse operations that do not have point-source type discharges and have pervious floors must develop and implement a Farm Plan that includes management practices to protect and improve water quality by managing irrigation, pesticides, nutrients, salinity, sediment, and aquatic habitat. Farm Plans must identify the

management measures the Discharger is implementing to meet water quality standards, maintain existing high quality water, and achieve compliance with this Order, including any management practice requirements identified Part E of this Attachment B to the Order, a schedule for implementation and verification monitoring to evaluate progress towards compliance with this Order

69. Commercial nursery, nursery stock production and greenhouse operation Farm Plans must comply with any applicable stormwater permit.
70. Dischargers who own or operate commercial nurseries, nursery stock production and greenhouse operations that grow crops in pots and/or containers must implement management practices that keep rainwater and/or stormwater separated from wastewater and irrigation runoff, and prevent rainwater from coming into contact with containerized plants.
71. Dischargers who own or operate commercial nurseries, nursery stock production and greenhouse operations that grow crops in pots and/or containers must monitor wastewater and irrigation runoff as specified in MRP Order No. R3-2010-00XX.

Part F. Groundwater Protection Requirements <NEW>

72. **Within 6 months** from the adoption of this Order, all Dischargers must report the following groundwater well location and construction information regarding groundwater wells located at the agricultural operation, in a format approved by the Central Coast Water Board Executive Officer:
- a. Owner-Assigned Well Identification;
 - b. Well Location (Latitude and Longitude, measured in decimal degrees and reported to 7 decimal points);
 - c. Water Use Category (e.g. domestic drinking water and/or agricultural);
 - d. Well construction Information (Well-logs, as-built drawings and descriptions, if available), including total depth, screened intervals, specific capacity, and pumping capacity.
 - e. Use for fertigation or chemigation purposes;
 - f. Type of backflow prevention devices utilized;
 - g. Photograph documenting condition of well and backflow prevention devices;
 - h. All historical water quality information;
73. Dischargers that fertigate, chemigate, or apply any chemicals through the irrigation system connected to a groundwater well, must install and properly maintain backflow prevention device(s) to prevent the discharge of waste to groundwater, consistent with any applicable Department of Pesticide (DPR) requirements and local ordinances.

74. Dischargers must monitor and report depth to water and sample groundwater from groundwater wells per MRP Order No. R3-2010-00XX at a quarterly sampling frequency of four consecutive quarters (i.e., first quarter is from January 1 to March 31, etc.) for the first year followed by annual monitoring thereafter.
75. Dischargers must properly destroy all abandoned groundwater wells, exploration holes or test holes, as defined by Department of Water Resources (DWR) Bulletin 74-81 and revised in 1988, in such a manner that they will not produce water or act as a conduit for mixing or otherwise transfer groundwater or waste constituents between permeable zones or aquifers. Proper well abandonment must be done consistent with any applicable DWR requirements and local ordinances,
76. Dischargers must construct and maintain ponds, reservoirs or other water containment structures to avoid leaching of waste to groundwater. Dischargers must sample surface water held in containment structures monthly as specified in the MRP Order No. R3-2010-00XX and promptly notify the Executive Officer in writing, if concentrations exceed applicable water quality standards.
77. Pursuant to Water Code Section 13267, the Executive Officer may require Dischargers to conduct sampling of private domestic wells in or near agricultural areas with high nitrate in groundwater and submit technical reports evaluating the sampling results. In addition, pursuant to Water Code Section 13304, the Central Coast Water Board may require Dischargers to provide alternative water supplies or replacement water service, including wellhead treatment, to affected public water suppliers or private domestic well owners.

Part G. Aquatic Habitat Protection Requirements <NEW>

This Part G applies to Dischargers who discharge or threaten to discharge waste to waters of the State that cause or contribute to exceedances or excursions of water quality standards due to disturbance and degradation of aquatic habitat as described below. Disturbance and degradation of aquatic habitats result from human activities that result in water quality impairment and make habitats less suitable or less available to aquatic life, such as removal of riparian vegetation, channel clearing, creation of bare dirt areas, and hydromodification.

78. Dischargers must protect existing aquatic habitat, collectively described as perennial, intermittent, or ephemeral streams, and riparian and wetland area habitat and prevent discharges of waste to waters of the state to meet water quality standards (e.g. temperature, turbidity, dissolved oxygen, etc), maintain existing high quality water, protect beneficial uses, and achieve compliance with this Order using best practicable treatment and control. Management practices to prevent such discharges of waste include, but are not limited to the following:

- a. Maintaining the following riparian functions: Streambank stabilization and erosion control; stream shading and temperature control; chemical filtration; flood water storage; aquatic life support; wildlife support;
 - b. Maintaining naturally occurring mixed vegetative cover (such as trees, shrubs, grasses, as described in NRCS Ecological Site Descriptions or other similar regional biological typologies) in aquatic habitat areas and their buffer zones;
 - c. No clearing of beneficial vegetation for food safety reasons;
 - d. No clear cutting or creating bare dirt areas;
 - e. No channel clearing except for agriculture ditches;
 - f. Preventing man made erosion and sedimentation, and maintaining shade over surface waters;
 - g. Other measures include limiting agricultural activities, such as equipment operation, in and near aquatic habitat;
79. The Central Coast Water Board may authorize aquatic habitat disturbance necessary for the purposes of water quality improvement or restoration of aquatic habitat. In these cases, Dischargers must implement appropriate and practicable measures to avoid or minimize impacts to aquatic habitat;
80. Where the discharge of waste impacts waters of the State that constitute wetlands or jurisdictional waters of the United States, the Discharger shall notify the Executive Officer and seek waste discharge requirements or Clean Water Act Section 401 certification and any required federal permit.
81. **Within 4 years** from the adoption of this Order, Dischargers must document with photo documentation in the Farm Plan, the presence of minimum riparian buffer widths adjacent to perennial and intermittent streams, per the time schedule and milestones in Part H below. Required buffer widths are based on stream tiers and identified in Table 1. Stream tiers are based upon modeled average daily natural flow and identified in Table 2. The buffer width for streams is measured from the top of the bank in each direction. In the case of an existing engineered levee system, the outer bank of the existing levee will be the outer edge of the buffer width. Where existing riparian vegetation width is greater than the riparian buffer widths required in Table 1, the Discharger must protect and maintain the maximum buffer width.

Table 1. Minimum riparian buffer widths for perennial and intermittent streams.

| Tier | Minimum Riparian Buffer Width | Modeled Average Daily Natural Flow |
|-------------|--------------------------------------|---|
| Tier 1 | 50 feet | 1- 15 cfs |
| Tier 2 | 75 feet | 15 – 50 cfs |
| Tier 3 | 100 feet | 50 cfs and above |

Table 2. Tier 2 and Tier 3 streams. All other perennial or intermittent streams not listed in Table 2 are considered Tier 1. Tiers are based on the National Hydrography Dataset Plus' (NHDPlus) estimated unit runoff mean annual natural flow.

| Tier 2 (75 Foot Buffer) | Tier 3 (100 Foot Buffer) |
|---|--|
| Aptos Creek | Carmel River (from Pacific Ocean to Tularcitos Creek confluence) |
| Arroyo Grande Creek | Estrella River (from Salinas River confluence to Yokum Bend) |
| Arroyo Seco | Pajaro River (from Pacific Ocean to San Benito River confluence) |
| Bear Creek | Salinas River (from Pacific Ocean to San Marcos Creek confluence) |
| Big Sur River | San Lorenzo River (from San Lorenzo River Lagoon at Crossing Street to Boulder Creek confluence) |
| Carbonera Creek | Santa Maria River (from Pacific Ocean to 0.9 miles east of Hwy 101) |
| Carmel River (upstream from Tularcitos Creek confluence) | Santa Ynez River (from Pacific Ocean to 5 miles west of Hwy 101 bridge) |
| Cholame Creek | |
| Cuyama River | |
| Estrella River (upstream from Yokum Bend) | |
| Little Sur River | |
| Nacimiento River | |
| Old Salinas River Estuary | |
| Pajaro River (upstream from San Benito River confluence) | |
| Paso Robles Creek | |
| Salinas Reclamation Canal (from Tembladero Slough confluence to Natividad Creek confluence) | |
| Salinas River (from San Marcos Creek confluence to Paso Robles Creek confluence) | |
| San Antonio River | |
| San Benito River | |
| San Juan Creek | |
| San Lorenzo Creek | |
| San Lorenzo River (upstream from Boulder Creek confluence) | |

| | |
|--|--|
| San Luis Obispo Creek | |
| Santa Maria River (from 0.9 miles east of Hwy 101 bridge to Cuyama River confluence) | |
| Santa Rosa Creek | |
| Santa Ynez River (from 5 miles west of Hwy 101 bridge to Lake Cachuma) | |
| Scott Creek | |
| Soquel Creek | |
| Tembladero Slough | |
| Tequisquita Slough | |
| Waddell Creek | |
| Zayante Creek | |

82. **Within 4 years** of the Board adoption of this Order, Dischargers must document with photo documentation in the Farm Plan, the presence of minimum buffer widths of fifty feet as measured from the high water mark for lakes, wetlands, estuaries, lagoons or any other natural body of standing water, as specified in Table 3, per the time schedule and milestones in Part H below.

Table 3. Minimum buffer widths for lakes, wetlands, and estuaries.

| Feature | Minimum Buffer Width |
|---|----------------------|
| Lakes, wetlands, estuaries and other natural body of standing water | 50 feet |

83. As an alternative to establishing and maintaining minimum buffer widths as required in Tables 1 – 3 above, a Discharger or group of Dischargers may develop and implement a *Riparian Function Protection and Restoration Plan*, as part of the Farm Plan, that demonstrates how all of the following riparian functions are to be restored and protected: (a) Streambank stabilization and erosion control, (b) stream shading and temperature control, (c) chemical filtration, (d) flood water storage, (e) aquatic life support, (f) Wildlife support. The *Riparian Function Protection and Restoration Plan* must be certified by a State registered Professional Engineer or Registered Geologist and include a schedule for implementation, measurable success criteria and a maintenance and monitoring plan. The *Riparian Function Protection and Restoration Plan* must be submitted **within 2 years** of the Board adoption of this Order for approval by the Executive Officer.

Part H. Time Schedule

General time schedules and milestones are identified in Tables 4 through 8. Dischargers must meet milestones as described by identified compliance dates. Interim milestones are identified to evaluate progress towards compliance with this Order. The

milestones are specific dates to achieve water quality objectives in irrigation runoff and discharge to groundwater.

Table 4. All Dischargers must comply with the following time schedule.

| Task | Compliance Date |
|--|---|
| Submit completed 2010 Notice of Intent | <p>For existing Dischargers enrolled under the 2004 Conditional Waiver - Within 60 days of Board adoption of the Order;</p> <p>For any Discharger acquiring control or ownership of an existing operation - Within 60 days of acquiring control or ownership of an operation.</p> <p>For any new proposed Discharger - Prior to any discharge.</p> |
| Submit Annual Acreage Update | January 1, 2012 and annually thereafter |
| Submit copy of notification letter to new Discharger (owner and/or operator) in the event of a change in control or ownership of an operation. | Immediately , when applicable |
| Submit Notice of Termination | Immediately , when applicable |
| Develop and Implement Farm Plan to address priority water quality issues | Immediately , when applicable |
| Submit Farm Plan or required elements of a Farm Plan | Within 30 days of written notification |
| Submit any required modifications to the Farm Plan | Within 30 days of written notification |
| Submit updated Quality Assurance Project Plan and Sampling and Analysis Plan for Watershed Monitoring Program for Executive Officer Approval | Within 3 months from adoption of this Order |
| Submit Quality Assurance Project Plan and Sampling and Analysis Plan for | Within 3 months from adoption of this Order |

| | |
|---|---|
| Individual Discharge Monitoring for Executive Officer Approval | |
| Submit groundwater well location and construction information | Within 6 months from adoption of this Order |
| Start Date for Implementing Watershed Monitoring Program | Within 6 months from adoption of this Order |
| Start Date for Implementing Individual Discharge Monitoring | Within 6 months from adoption of this Order |
| Submit Monitoring Reports | Within 3 months after start of monitoring, and quarterly thereafter – or as otherwise directed by the Executive Officer. |
| Submit Conceptual Plan for Groundwater Monitoring Program for Executive Officer approval. | Within 2 years from the adoption of this Order. |

Table 5. Dischargers adjacent to or in close proximity (within 1000 feet) to an impaired surface waterbody identified on Impaired Waters List or their tributaries must comply with the following time schedule and milestones.

| Milestone | Compliance Date |
|--|--|
| Eliminate discharge of irrigation runoff, or provide water quality data and information to demonstrate that any discharge of irrigation runoff has been sufficiently treated or controlled to meet water quality standards or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to exceedances or excursions of any water quality standards in waters of the State. | Within 2 years from the adoption of this Order, with the following interim milestones: <i>Year 1 - 50% runoff volume reduction</i> <i>18 Months - 75% runoff volume reduction</i> |

Table 6. Dischargers adjacent to or in close proximity (within 1000 feet) to any surface waterbody (creek, stream, river, slough, lake, pond, or other body of water) designated in the Basin Plan or their tributaries must comply with the following time schedule and milestones

| Milestone | Compliance Date |
|---|--|
| <p>Eliminate toxicity in irrigation runoff or eliminate the discharge of irrigation runoff from their farming operation. Alternatively, Dischargers may provide water quality data and information to demonstrate that any irrigation runoff has been sufficiently treated or controlled to meet toxicity water quality standards, or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to exceedances of any toxicity water quality standards in waters of the State.</p> | <p>Within 2 years from the adoption of this Order, with the following interim milestones: <i>Year 1 - XX</i> <i>18 Months - XX</i></p> |
| <p>Eliminate or minimize sediment and turbidity to meet water quality standards in irrigation runoff or eliminate the discharge of irrigation runoff from their farming operation. Alternatively, Dischargers may provide water quality data and information to demonstrate that any irrigation runoff has been sufficiently treated or controlled to meet sediment and turbidity water quality standards or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to exceedances of any sediment or turbidity water quality standards in waters of the State.</p> | <p>Within 3 years from the adoption of this Order, with the following interim milestones: <i>Year 1 - XX</i> <i>Year 2 - XX</i></p> |
| <p>Eliminate nutrients and salts to meet water quality standards in irrigation runoff or eliminate the discharge of irrigation runoff from their farming operation. Alternatively, Dischargers may provide water quality data and information to demonstrate that any irrigation runoff has been sufficiently treated or controlled to achieve nutrient and salt water quality</p> | <p>Within 4 years from the adoption of this Order, with the following interim milestones: <i>Year 1 - XX</i> <i>Year 2 - XX</i> <i>Year 3 - XX</i></p> |

| | |
|---|---|
| standards, or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to exceedances of any nutrient or salt water quality standards in waters of the State. | |
| Protect existing aquatic habitat | Immediately |
| Achieve full implementation of riparian buffer widths as identified in Tables 1 – 3 or as identified in certified Riparian Function Protection and Restoration Plan. | Within 4 years from the adoption of this Order, with the following interim milestones: <i>Year 2 – 1/3 of riparian buffer is protected or Plan completion, if applicable</i> <i>Year 3 – 2/3 of riparian buffer is protected</i> |

Table 7. All Dischargers must comply with the following time schedule and milestones related to nitrate and salt in groundwater.

| Milestone | Compliance Date |
|---|---|
| Eliminate or minimize nitrate and salt in groundwater discharges to meet water quality standards. Alternatively, Dischargers may provide water quality data and information to demonstrate that any discharge has been sufficiently treated or controlled to meet nitrate and salt water quality standards or is of sufficient quality where it will maintain existing high quality water, and not cause or contribute to additional loading of waste or exceedances of any nitrate or salt water quality standards in waters of the State. | Within 6 years from the adoption of this Order, with the following interim milestones: <i>Year 2 - XX</i> <i>Year 4 – XX</i> |

Part I. Fees

84. Dischargers must pay a fee to the State Water Resources Control Board in compliance with the fee schedule contained in Title 23 California Code of Regulations.

85. Dischargers must pay any relevant monitoring fees (e.g. Cooperative Monitoring Program) necessary to comply with monitoring and reporting requirements of this Order.

S:\Shared\Agricultural Regulatory Program\Ag. Order 2.0\February 1 2010 Docs\Final Documents\Attachment 3-PrelimDraftAgOrder_020110.doc

EXHIBIT G

**PRELIMINARY DRAFT
STAFF RECOMMENDATIONS
FOR AN
AGRICULTURAL ORDER**

**CONDITIONALLY WAIVING INDIVIDUAL WASTE
DISCHARGE REQUIREMENTS
FOR DISCHARGES
FROM IRRIGATED LANDS**

Preliminary Draft Report

**CENTRAL COAST REGIONAL
WATER QUALITY CONTROL BOARD**

February 1, 2010





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State of California

Linda S. Adams, Secretary
California Environmental Protection Agency

State Water Resources Control Board
<http://www.waterboards.ca.gov/>

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Table of Contents

| | | |
|------------|---|----|
| 1.0 | Introduction | 4 |
| 1.1 | What is the issue? | 4 |
| 1.2 | Why is the issue important? | 4 |
| 1.3 | What is the Central Coast Water Board's regulatory role? | 6 |
| 1.4 | Why is the Central Coast Water Board changing the current Order? | 6 |
| 1.5 | What actions are necessary to achieve water quality improvement? | 7 |
| 1.6 | A Dilemma: | 8 |
| 2.0 | Background | 9 |
| 3.0 | The Preliminary Draft Agricultural Order | 9 |
| 3.1 | Summary | 9 |
| 3.2 | Public Input and Consideration of Additional Information | 10 |
| 4.0 | Water Quality Conditions | 10 |
| 4.1 | Summary of Surface Water Quality Conditions | 10 |
| 4.2 | Groundwater Quality | 13 |
| 4.3 | Aquatic Habitat Conditions | 15 |
| 4.4 | Agricultural Discharge Water Quality | 17 |
| 5.0 | Preliminary Draft Staff Recommendations for an Agricultural Order | 18 |
| 5.1 | Background on Agricultural Regulatory Program Implementation (2004 – 2009) | 18 |
| 5.2 | Preliminary Draft Agricultural Order – Summary of Staff Proposed Conditions | 19 |
| 5.3 | Preliminary Draft Monitoring and Reporting Requirements | 21 |
| 5.4 | Proposed Time Schedule for Compliance | 25 |
| 6.0 | Preliminary Draft Environmental Analysis Pursuant to the California Environmental Quality Act (CEQA) | 25 |
| 7.0 | References | 26 |

Attachments

1. Preliminary Draft Report on Water Quality Conditions
2. Draft Summary Table of Changes Related to Existing Conditional Waiver
3. Preliminary Draft Agricultural Order
4. Draft Surface Water and Riparian Monitoring Sampling Parameters
5. Preliminary Draft Initial Study and Environmental Checklist
6. List of References Consulted and/or Cited for Preliminary Draft Agricultural Order

1.0 Introduction

The Central Coast Water Board currently regulates discharges from irrigated lands with a Conditional Waiver of Waste Discharge Requirements (Order No. R3-2009-0050, hereafter current Order) that expires in July 2010. The Central Coast Water Board is beginning their process to consider conditions to be included in a new or revised Order that achieves desired water quality improvement.

1.1 What is the issue?

The Central Coast Water Board must determine how best to regulate agricultural discharges on the Central Coast to directly address the major water quality issues of toxicity, nitrates, pesticides and sediment in agricultural runoff and/or leaching to groundwater so that we achieve desired water quality outcomes that support all beneficial uses. Agricultural discharges (primarily due to contaminated irrigation runoff and percolation to groundwater) are a major cause of water quality impairment. The main problems are:

1. In the Central Coast Region, thousands of people are drinking water contaminated with unsafe levels of nitrate or are drinking replacement water to avoid drinking contaminated water. The cost to society for treating polluted drinking water is estimated to be in the hundreds of millions of dollars.
2. Aquatic organisms in large stretches of rivers in the entire region's major watersheds have been severely impaired or completely destroyed by severe toxicity from pesticides.

These impairments are well documented, severe, and widespread. Nearly all beneficial uses of water are impacted, and the discharges causing the impairments continue. Immediate and effective action is necessary to improve water quality protection and resolve the widespread and serious impacts on people and aquatic life.

1.2 Why is the issue important?

The Central Coast Region's coastal and inland water resources are unique, special, and in some areas still of relatively high quality. Millions of Central Coast residents depend on groundwater for nearly all their drinking water from both deep municipal supply wells and shallow domestic wells. In addition, the region supports some of the most significant biodiversity of any temperate region in the world and is home to many sensitive natural habitats and species of special concern. These resources and the beneficial uses of the Central Coast water resources are severely impacted or threatened by agricultural discharges. At the same time, the Central Coast Region is one of the most productive and profitable agricultural regions in the nation, reflecting a gross production value of more than six billion dollars in 2008, contributing 14 percent of California's agricultural economy. For example, agriculture in Monterey County supplies

80 percent of the nation's lettuces and nearly the same percentage of artichokes and sustains an economy of 3.4 billion dollars.¹

Thousands of people rely on public supply wells with unsafe levels of nitrate and other pollutants. Excessive nitrate concentration in drinking water is a significant public health issue resulting in risk to infants for methemoglobinemia or "blue baby syndrome", and adverse health effects (i.e., increased risk of non-Hodgkin's, diabetes, Parkinson's disease, Alzheimers, endocrine disruption, cancer of the organs) among adults as a result of long-term consumption exposure. Seventeen percent of public supply wells surveyed by the Department of Water Resources (DWR) showed contaminants above the drinking water standard, with nitrate as the most frequent chemical to exceed the drinking water standard. In a Monterey County study, in portions of the Salinas Valley, up to 50 percent of the wells surveyed had concentrations above the nitrate drinking water standard; with average concentrations nearly double the drinking water standard and the highest concentration of nitrate approximately nine times the drinking water standard. Water Board staff estimate several additional thousands of people are drinking from shallow private domestic wells. For these wells, water quality is not regulated, is often unknown, not treated, or treated at significant cost to the well owner.

Agricultural discharges of fertilizer are the main source of nitrate contamination to groundwater based on local nitrate loading studies. In some cases, up to 30 percent of applied nitrogen may have leached to groundwater in the form of nitrate. Due to elevated concentrations of nitrate in groundwater, many public water supply systems have abandoned wells and established new wells or sources of drinking water, or are required to remove nitrate before delivery to the drinking water consumer, often, at significant cost.

Agricultural discharges have impaired surface water quality in the Central Coast Region, such that some creeks are found toxic (lethal to aquatic life) every time the site is sampled and as a result many areas are devoid of aquatic organisms essential to ecological systems. Vertebrates, including fish, rely on invertebrates as a food source. Consequently, invertebrates are key indicators of stream health, and are commonly used for toxicity analyses and assessments of overall habitat condition. The majority of creeks, rivers and estuaries in the Central Coast Region are not meeting water quality standards. Most of these waterbodies are impacted by agriculture. These conditions were determined and documented on the Central Coast Water Board's 2008 Clean Water Act Section 303(d) List of Impaired Waterbodies. The three main forms of pollution from agriculture are excessive runoff of pesticides and toxicity, nutrients, and sediments. In a statewide study, the Central Coast Region had the highest percentage of sites with pyrethroid pesticides detected and the highest percentage of sites exceeding toxicity limits. In addition, there are more than 46 waterbodies that exceed the nitrate water quality standard and several waterbodies routinely exceed the nitrate water quality standard by five-fold or more. In addition to causing the human health impacts discussed previously, these high levels of nitrate are impacting sensitive fish

¹ Salinas Valley Chamber of Commerce http://atlantabrain.com/ag_industry.asp

species such as the threatened Steelhead, endangered Coho Salmon, by causing algae blooms that remove oxygen from water, creating conditions unsuitable for aquatic life.

The water quality conditions throughout the region are also impacting several other threatened and endangered species, including the marsh sandwort (*arenaria paludicola*), Gambel's watercress (*nasturtium rorippa gambelii*), California least tern (*sterna antillarum browni*), and red-legged frog (*Rana aurora*). The last remaining known populations of the two endangered plants, marsh sandwort and Gambel's watercress, occur in Oso Flaco Lake, are critically imperiled and depend upon the health of the Oso Flaco watershed to survive.

1.3 What is the Central Coast Water Board's regulatory role?

The California Regional Water Board's and State Water Resources Control Board's mission and regulatory responsibility *"is to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations."* The Central Coast Water Board is responsible for regulating discharges of waste to the region's waterbodies to protect beneficial uses of the water. In some cases, such as the discharge of nitrate to groundwater, the Water Board is the only agency with regulatory responsibility and authority for controlling the discharge to waters of the State. The Central Coast Water Board issues Orders that contain prohibitions on and requirements for discharging waste and enforces violations of the prohibitions and requirements in these Orders. The Central Coast Water Board also develops water quality standards and implements plans and programs. These activities are conducted to best protect the State's waters, recognizing the local differences in climate, topography, geology and hydrology. As the current Order expires in July 2010, The Central Coast Water Board must immediately determine how best to regulate agricultural discharges on the Central Coast to directly address the major water quality issues of toxicity, nitrates, pesticides and sediment in agricultural runoff and/or leaching to groundwater so that we achieve desired water quality outcomes that support all beneficial uses.

1.4 Why is the Central Coast Water Board changing the current Order?

The Central Coast Water Board and other stakeholders successfully developed an Order (in the form of a Conditional Waiver of Waste Discharge Requirements (2004 Conditional Waiver) through a stakeholder process and the Board adopted the Conditional Waiver on July 9, 2004 and renewed it for one year on July 10, 2009. Agricultural dischargers enrolled and established farm plans based on education and outreach, and created an industry-led, nonprofit, monitoring program. The current Conditional Waiver, however, lacks clarity and does not focus on accountability and verification of directly resolving the known water quality problems. The conditions of the 2004 Conditional Waiver address all common problems associated with all agricultural operations equally and without specific targets or timelines for compliance. Currently, the Water Board and the public have no direct evidence that water quality is improving

due to the 2004 Conditional Waiver. The current watershed-scale monitoring program only indicates long-term (multi-year), receiving water changes without measuring : 1) if individual agricultural dischargers are in compliance with Conditional Waiver conditions or water quality standards, or 2) if short-term progress towards water quality improvements on farms or in agricultural discharges is occurring. We know that better on-site information assists growers in improving farming practices and some growers have advanced efforts toward water quality protection. Currently, information that provides evidence of on-farm improvements and reductions in pollution loading from farms is not required, and therefore probably does not exist for most farms. The public, including those who are directly impacted by farm discharges, and the Water Board, do not have the necessary evidence of compliance or improvements. This is unacceptable given the magnitude and scale of the documented water quality impacts and the number of people directly affected. At a minimum, we continue to observe that agricultural discharges continue to severely impact water quality. The Central Coast Water Board must determine how best to regulate agricultural discharges on the Central Coast to directly address the major water quality issues of toxicity, nitrates, pesticides and sediment in agricultural runoff and/or leaching to groundwater so that we achieve desired water quality outcomes that support all beneficial uses.

1.5 What actions are necessary to achieve water quality improvement?

The Central Coast Water Board must fulfill its regulatory responsibility to protect water quality. The Central Coast Water Board must determine how best to regulate agricultural discharges on the Central Coast to directly address and resolve the major water quality issues of toxicity, nitrates, pesticides and sediment in agricultural runoff and/or leaching to groundwater so that we achieve desired water quality outcomes that support all beneficial uses. The agricultural industry must be accountable for preventing and addressing the water quality issues caused by agriculture. Together, we must control agricultural discharges – especially contaminated irrigation runoff and percolation to groundwater. The Central Coast Water Board must focus on those areas of the Central Coast Region already known to have, or be at great risk for, severe water quality impairment. The agricultural industry must implement the most effective management practices (related to irrigation, nutrient, pesticide and sediment management) that will most likely yield the greatest amount of water quality protection, and verify their effectiveness with on-farm data. The Central Coast Water Board must establish a known and reasonable time schedule, with clear and direct methods of verifying compliance and monitoring progress over time so that agricultural dischargers understand when and if they are successfully reducing their contribution to the problems or maintaining adequate levels of protection. We all must adapt to what we learn from measures of progress, so we efficiently and effectively achieve water quality improvement over time. To prevent further water quality impairment and impact to beneficial uses, we must take action now.

1.6 A Dilemma:

Agricultural discharges continue to contribute to already significantly impaired water quality and impose certain risk and massive costs to public health, drinking water supplies, aquatic life, and valued water resources. If we do not protect water quality and beneficial uses, these costs and other impacts are likely to increase significantly. Resolving agricultural water quality issues will greatly benefit public health, present and future drinking water supplies, aquatic life, aesthetic, recreational, and other beneficial uses. Resolving agricultural water quality issues will require changes in farming practices, will impose increasing costs to individual farmers and the agricultural industry at a time of competing demands on farm income, regulatory compliance efforts, and food safety challenges, and may impact the local economy.

Protecting water quality and the environment while protecting agricultural benefits and interests will require change and may shift who bears the costs and who reaps the benefits. There will be a spectrum of adaptation by individual farmers to any change in water quality requirements – some farmers will react by actively adapting to the change and find efficiencies and advantages to achieving compliance; and some farmers may be more resistant to change or otherwise have greater difficulty adapting, possibly resulting in negative impacts. These impacts can be reduced by the use of reasonable time schedules and by providing that individual farmers identify how they can best meet water quality standards in their individual Farm Plans.

However, continuing to operate in a mode that causes constant or increasingly severe receiving water problems is not a sustainable model. Change will be effected one way or another. Without proactive improvements in operation, a non-sustainable model will result in increasing changes such as increasingly impaired habitat, and reactive fixes such as additional costly water supply treatment, and additional cost for developing new supplies (example: northern Monterey County water supply on-going development costs due in part to groundwater overuse by Salinas Valley water users and seawater intrusion). There is no “new water” other than through desalinization which is expensive not only in terms of money but in energy costs.

To prevent further water quality impairment and impact to beneficial uses, the Central Coast Water Board must take action immediately to better regulate agricultural discharges on the Central Coast to directly address the major water quality issues of toxicity, nitrates, pesticides and sediment in agricultural runoff and/or leaching to groundwater so that we achieve desired water quality outcomes that support all beneficial uses.

2.0 Background

The California Regional Water Quality Control Board (Central Coast Water Board) Agricultural Regulatory Program was initiated in 2004, with the adoption of a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (2004 Conditional Waiver, Order No. R3-2004-0117). The 2004 Conditional Waiver expired on July 9, 2009 and the Central Coast Water Board extended it until July 10, 2010 (Order No. R3-2009-0050).

The intent of the 2004 Conditional Waiver was to regulate discharges from irrigated lands to ensure that such dischargers are not causing or contributing to exceedances of any Regional, State, or Federal numeric or narrative water quality standard. The requirements of the 2004 Conditional Waiver focused on enrollment, education and outreach, the development of Farm Water Quality Management Plans (Farm Plans), and receiving (watershed-scale) water quality monitoring. However, substantial evidence indicates discharges of waste are causing significant exceedances of numeric and narrative water quality standards resulting in negative impacts on beneficial uses.

Prior to the expiration of the current Conditional Waiver in July 2010, the Central Coast Water Board must consider the adoption of new or revised conditions to achieve desired water quality improvement. This report provides background and supporting information, and the terms and requirements for these Preliminary Staff Recommendations for an Agricultural Order for Discharges from Irrigated Lands (Preliminary Draft Agricultural Order). Specifically, this report contains:

1. an introduction explaining the context for considering a new Agricultural Order,
2. a description of the water quality impacts caused by agricultural discharges,
3. the Preliminary Draft Agricultural Order,
4. and a preliminary draft evaluation of environmental impacts from implementation of this Preliminary Draft Agricultural Order (initial study/environmental checklist).

3.0 The Preliminary Draft Agricultural Order

3.1 Summary

The Preliminary Draft Agricultural Order, like the 2004 Conditional Waiver, must regulate discharges of waste from irrigated lands to ensure that such dischargers are not causing or contributing to exceedances of any Regional, State, or Federal numeric or narrative water quality standard, such that all beneficial uses are protected. The Preliminary Draft Agricultural Order directly addresses agricultural discharges – especially contaminated irrigation runoff and percolation to groundwater causing widespread toxicity, unsafe levels of nitrate, unsafe levels of pesticides, and excessive sediment in surface waters and/or groundwaters. The Preliminary Draft Agricultural Order also focuses on those areas of the Central Coast Region already known to have, or at great risk for, severe water quality impairment. In addition, the Preliminary Draft

Agricultural Order requires the effective implementation of management practices (related to irrigation, nutrient, pesticide and sediment management) that will most likely yield the greatest amount of water quality protection. The Preliminary Draft Agricultural Order includes immediate requirements to eliminate or minimize the most severe or impactful agricultural discharges and additional requirements with specific and reasonable time schedules to eliminate or minimize degradation from all agricultural discharges. The Preliminary Draft Agricultural Order also includes clear and direct methods and indicators for verifying compliance and monitoring progress over time.

3.2 Public Input and Consideration of Additional Information

The Preliminary Draft Agricultural Order describes requirements for owners and operators (Dischargers) of irrigated lands that discharge or have the potential to discharge waste that could directly or indirectly reach waters of the State and affect the quality of any surface water or groundwater. The requirements described in the Preliminary Draft Agricultural Order were developed by Central Coast Water Board staff based upon information and data available, and public input received to date. At the December 2009 Board Meeting, the Central Coast Water Board invited interested persons to submit any alternative recommendations for regulating agricultural discharges for consideration by Board members and staff. Board members directed interested persons to submit alternative recommendations in writing by April 1, 2010. The Central Coast Water Board will review and consider all alternatives submitted for consistency with: 1) the program goals of resolving surface and groundwater water quality impairment and impacts to aquatic habitat over a reasonable time frame, and including milestones, and monitoring and reporting to verify compliance and measure progress over time; and 2) minimum statutory requirements (including Water Code sections 13263 and 13269 and relevant plans, policies, and regulations identified in Attachment A to the Preliminary Draft Agricultural Order). During the course of reviewing alternatives (including any specific comments on or recommendations for the Preliminary Draft Agricultural Order), Central Coast Water Board staff may modify proposed conditions or identify other feasible conditions, resulting in revisions to the Preliminary Draft Agricultural Order. Interested Persons will have an opportunity to review and provide comments on forthcoming versions of the Agricultural Order (e.g., during informal staff workshops or Board information workshops), and during future public comment periods associated with specific actions to be taken by the Central Coast Water Board (e.g., adoption of new Agricultural Order).

4.0 Water Quality Conditions

4.1 Summary of Surface Water Quality Conditions

Most waterbodies located in or near areas influenced by agriculture in the Central Coast Region have unsafe levels of nutrients, unsafe levels of pesticides/toxicity, and

excessive levels of sediment/turbidity, evidenced by exceedances of surface water quality standards, and poor biological and physical conditions. Most surface waterbodies in agricultural watersheds are not suitable for drinking water, recreation (swimming or fishing), or aquatic life. Surface water quality data shows severe water quality impairment in most areas of the region with only minimal signs of improvement in a few areas.

To develop a comprehensive assessment of surface water quality in agricultural areas throughout the Region, staff evaluated data from the Cooperative Monitoring Program (CMP), the monitoring program established for compliance with the Conditional Waiver, and the Central Coast Water Board's Regional Monitoring Program, the Central Coast Ambient Monitoring Program (CCAMP). The CMP data focused monitoring in problem areas with agricultural sources and CCAMP data focused monitoring in all areas of the Region. Consequently, CMP data are biased toward more agricultural runoff influenced streams. Staff also evaluated (and will continue to evaluate) both sets of data for evidence of trends. Staff also completed an assessment of potential risk to Marine Protected Areas in the nearshore marine environment.

Surface water quality conditions are detailed in Attachment 1 to this staff report and summarized below.

Indicators of Surface Water Quality Impairment-

- Most of the same areas that showed serious contamination from agricultural pollutants five years ago are still seriously contaminated.
- The 2008 Clean Water Act Section 303(d) List of Impaired Waterbodies for the Central Coast Region (Impaired Waters List) identified surface water impairments for approximately 167 water quality limited segments related to a variety of pollutants (e.g., salts, nutrients, pesticides/toxicity, and sediment/turbidity). Sixty percent of the surface water listings identified agriculture as one of the potential sources of water quality impairment.
- Agricultural discharges most severely impact surface waterbodies in the lower Salinas and Santa Maria watersheds, both areas of intensive agricultural activity. Evaluated through a multi-metric of water quality, 82 percent of the most degraded sites in the Central Coast Region are in these agricultural areas.
- Nitrate concentrations in areas that are most heavily impacted are not improving in significantly or in any widespread manner and in a number of sites in the lower Salinas and Santa Maria watersheds appear to be getting worse in the last few years (from CCAMP and CMP data) .
- Thirty percent of all sites from CCAMP and CMP have average nitrate concentrations that exceed the drinking water standard, and approximately 57 percent exceed the level necessary to protect aquatic life. Several of these water bodies have average nitrate concentrations that exceed the drinking water standard by five-fold or more. Some of the most seriously polluted waterbodies include the Tembladero Slough system (including Old Salinas River, Alisal Creek, Alisal Slough, Espinosa Slough, Gabilan Creek and Natividad Creek), the Pajaro River (including Llagas Creek, San Juan Creek, and Furlong Creek), the

lower Salinas River (including Quail Creek, Chualar Creek and Blanco Drain), the lower Santa Maria River (including Orcutt-Soloman Creek, Green Valley Creek, and Bradley Channel), and the Oso Flaco watershed (including Oso Flaco Lake, Oso Flaco Creek, and Little Oso Flaco Creek).

- Discharges from some agricultural drains have shown toxicity every time the drains are sampled. Researchers collaborating with CCAMP have shown that these toxic discharges can cause toxic effects in river systems that damage benthic invertebrate communities.
- Agricultural use of pyrethroid pesticides in the Central Coast Region and associated toxicity are among the highest in the state. In a statewide study of four agricultural areas conducted by the Department of Pesticide Regulation (DPR), the Salinas study area had the highest percent of surface water sites with pyrethroid pesticides detected (85 percent), the highest percent of sites that exceeded levels expected to be toxic (42 percent), and the highest rate (by three-fold) of active ingredients applied (113 lbs/acre).
- Agricultural discharges contribute to sustained turbidity with many sites heavily influenced by agricultural discharges exceeding 100 NTUs as a median value. Most CCAMP sites have a median turbidity level of under 5 NTUs. Resulting turbidity greatly exceeds levels that impact the ability of salmonids to feed. Many of these sites are located in the lower Santa Maria and Salinas-Tembladero watersheds.
- Agricultural discharges result in water temperatures that exceed levels that are desirable for salmonids at some sites in areas dominated by agricultural activity. Several of these sites are in major river corridors that provide rearing and/or migration habitat for salmonids. These include the Salinas, Santa Maria, and Santa Ynez rivers.
- Bioassessment data shows that creeks in areas of intensive agricultural activity have impaired benthic communities. Aquatic habitat is often poorly shaded, high in temperature, and has in-stream substrate heavily covered with sediment.
- Several Marine Protected Areas (MPAs) along the Central Coast are at risk of pollution impacts from sediment and water discharges leaving river mouths. Three of the MPAs, Elkhorn Slough, Moro Cojo Slough and Morro Bay, are estuaries that receive runoff into relatively enclosed systems.
- For Moro Cojo Slough and Elkhorn Slough, nitrates, pesticides and toxicity are documented problems. These two watersheds have more intense irrigated agricultural activity than does the Morro Bay watershed.

Indicators of Surface Water Quality Improvement -

- Some drainages in the Santa Barbara area are improving in surface water quality (such as Bell Creek, which supports agricultural activities) and on Pacheco Creek in the Pajaro watershed. In the lower Salinas and Santa Maria watersheds, flow volumes are declining at some sites, so at these locations nitrate loads may not necessarily be getting worse in spite of trends in concentrations;
- Dry season flow volume appears to be declining in some areas of intensive agriculture;

- Detailed flow analysis by the CMP showed that 18 of 27 sites in the lower Salinas and Santa Maria watersheds had statistically significant decreases in dry season flow over the first five years of the program;
- Two sites in the lower Santa Maria area show significant improvements in nitrate concentration (Green Valley Creek (312GVS) and Oso Flaco Creek (312OFC);
- Four sites on the main stem of the Salinas River show improvements in turbidity during the dry season;
- Dry season turbidity is improving along a portion of the main stem of the Salinas River;
- CCAMP monitoring has detected declining flows at other sites elsewhere in the Region, likely because of drought;

Surface Water Quality Data and Information Gaps -

- The timeframe and frequency of data collection limit the evaluation of statistical trends for some water quality parameters in surface waterbodies;
- Flow data are not collected at all sites, making it difficult to identify patterns or trends in flow and loading of pollutants (compared to changes in concentration);
- Flow information and water quality data are not reported for agricultural discharges from individual farms, so correlations cannot be made between reductions in irrigation runoff or improvements in agricultural discharge quality vs. in-stream changes.
- In-stream water quality is an effective long-term measure of water quality improvement (especially for nutrients), and more time may be necessary to identify any significant change.
- There is no individual on-farm monitoring or reporting, and it is unknown how individual farms contribute to surface water quality improvement or impairment. In addition, it is unknown if individual Dischargers are in compliance with water quality standards (given the magnitude and scale of documented impacts, it is highly likely that most discharges are not in compliance).
- In Marine Protected Areas, there is no monitoring of sediments that carry pesticides in attached forms. Without this information it is difficult to determine if these pesticides, carried downstream in streamflow by sediments and discharged to the ocean, harm marine life.
- Additional research would increase understanding of the potential impacts of nutrient discharges in rivers in local ocean waters.

4.2 Groundwater Quality

Groundwater is severely impaired by nitrate contamination in many areas of the Central Coast Region. In many areas, nitrate concentration in groundwater is orders of magnitude above the drinking water standard, resulting in a significant threat to public health. This problem is critically important because much of the Central Coast Region is almost completely dependent on groundwater resources.

To develop a comprehensive assessment of groundwater quality in agricultural areas throughout the Region, staff evaluated available groundwater data collected by the California Department of Water Resources, California Department of Public Health (CDPH), Monterey County Water Resources Agency, and other researchers. Groundwater quality data generally represents conditions at the groundwater basin and sub-basin scale, and in particular, comprehensive impacts of agricultural land uses over a broad scale. Groundwater quality data for the purposes of characterizing specific individual agricultural discharges are not available and collection of this type of groundwater data is not required in the 2004 Conditional Waiver.

Groundwater quality conditions are detailed in Attachment 1 to this staff report and summarized below.

Indicators of Groundwater Quality Impairment -

- Groundwater contamination from nitrate severely impacts public drinking water supplies in the Central Coast Region. A Department of Water Resources (DWR) survey of groundwater quality data collected between 1994 and 2000 from 711 public supply wells in the Central Coast Region found that 17 percent of the wells (121 wells) detected a constituent at concentrations above one or more drinking water standards or primary maximum contaminant levels (MCLs). Nitrate caused the most frequent MCL exceedances (45 mg/L nitrate as nitrate or 10 mg/L nitrate as nitrogen), with approximately 9 percent of the wells (64 wells) exceeding the MCL for nitrate. According to data maintained in the GAMA-Geotracker database, recent impacts to public supply wells are greatest in portions of the Salinas Valley (up to 20 percent of wells impacted) and Santa Maria groundwater (approximately 17 percent) basins. In the Gilroy-Hollister Groundwater Basin, 11 percent are impacted, and the CDPH identified over half of the drinking water supply wells as vulnerable to discharges from agricultural-related activities. Due to these elevated concentrations of nitrate in groundwater, many public water supply systems are required to provide wellhead treatment, at significant cost, to remove nitrate before delivery to the drinking water consumer.
- Groundwater contamination from nitrate severely impacts shallow domestic drinking water supplies in the Central Coast Region. Domestic wells (wells supplying one to several households) are typically screened in shallower zones than public supply wells, and typically have higher nitrate concentrations as a result. Water quality monitoring of domestic wells is not generally required and water quality information is not readily available, however based on the limited data available, the number of domestic wells that exceed the nitrate drinking water standard is likely in the range of hundreds to thousands in the Central Coast Region.
- In Monterey County, 25 percent of 352 wells sampled (88 wells) had concentrations above the nitrate drinking water standard in the northern Salinas Valley. In portions of the Salinas Valley, up to approximately 50 percent of the wells surveyed had concentrations above the nitrate drinking water standard, with average concentrations nearly double the drinking water standard and the highest concentration of nitrate approximately nine times the drinking water

standard. Nitrate exceedences in the Gilroy-Hollister and Pajaro groundwater basins are similar, as reported by local agencies/districts for those basins.

- In many cases, whole communities relying on groundwater for drinking water purposes are affected. Local agencies have reported the shut down of domestic drinking water wells due to high nitrate concentrations. In addition, local agencies and consumers have reported impacts to human health resulting from nitrate contaminated groundwater likely due to agricultural land uses, and spent significant financial resources to ensure proper drinking water treatment and reliable sources of quality drinking water for the long-term. In the Central Coast Region, the Monterey County community of San Jerardo, the San Martin area of Santa Clara County, and the City of Morro Bay are among the local communities affected by nitrate.

Groundwater Quality Data and Information Gaps -

- Groundwater quality (especially in deeper parts of the aquifer) is an effective long-term measure of water quality improvement and long time periods are usually necessary to identify significant change in water quality.
- Shallow groundwater is generally more directly susceptible to pollution from overlying land use. Groundwater quality data collection from shallow wells (especially agricultural or domestic drinking water wells) is not required and data is only broadly available, thus limiting evaluations related to shorter term indications of water quality changes.
- Well construction data (e.g., depth and screened intervals) are generally available for public supply wells but are otherwise not collected on a broad scale in a common format. This data gap limits more precise evaluations of water quality and groundwater depth.
- Groundwater data from wells associated with individual farms or areas of intensive agriculture are not routinely collected, nor have data been collected for all such areas in the region. This data gap limits understanding of chemical contributions from individual farms or areas to the levels of chemicals found in groundwater wells.

4.3 Aquatic Habitat Conditions

Aquatic habitat is degraded in many areas of the region as evidenced by poor biological and physical conditions. Most surface waterbodies in agricultural watersheds are not suitable for safe recreational fishing or to support aquatic life.

To determine aquatic habitat conditions, staff reviewed data collected by CMP and CCAMP, and conducted a review of available riparian and wetland information for the Central Coast Region. While the 2004 Conditional Waiver did not specifically require aquatic habitat monitoring, it stated that cooperative monitoring of in-stream effects would enable the Central Coast Water Board to assess the overall impact of agricultural discharges to beneficial uses, such as aquatic life and habitat. The 2004 Conditional Waiver also requires protection of beneficial uses including aquatic and wildlife habitat.

The proposed 2010 order continues that requirement.

Aquatic habitat conditions are detailed in Attachment 1 to this staff report and summarized below.

Indicators of Aquatic Habitat Degradation -

- Agricultural activities result in the alteration of riparian and wetland areas, and continue to degrade the waters of the State and associated beneficial uses. Owners and operators of agricultural operations historically removed riparian and wetland areas to plant cultivated crops and in many areas continue to do so.
- As a result of aquatic habitat degradation, watershed functions that serve to maintain high water quality, aquatic habitat and wildlife - by filtering pollutants, recharging aquifers, providing flood storage capacity, have been disrupted.
- Data collected from CCAMP and CMP indicate that population characteristics of aquatic insects (benthic macroinvertebrates) important to ecological systems reflect poor water quality, degradation or lack of aquatic habitat, and poor overall watershed health at sites in areas with heavy agricultural land use. Aquatic habitat is often poorly shaded, high in temperature, and stream bottoms are heavily covered with sediment.
- The lower Salinas watershed and lower Santa Maria watersheds score low for common measures of benthic macroinvertebrate community health and aquatic habitat health.
- Unstable, bare dirt and tilled soils, highly vulnerable to erosion and stormwater runoff, are common directly adjacent to surface waterbodies in agricultural areas. Erosion and stormwater runoff from agricultural lands contributes sediment and sustained turbidity at levels that impact the ability of salmonids to feed. Many of these sites are located in the lower Santa Maria and Salinas-Tembladero watersheds.
- Degradation of aquatic habitat also results in water temperatures that exceed levels that are desirable for salmonids at some sites in areas dominated by agricultural activity. Several of these sites are in major river corridors that provide rearing and/or migration habitat for salmonids. These include the Salinas, Santa Maria, and Santa Ynez rivers.
- Real and/or perceived incompatible demands between food safety and environmental protection and subsequent actions taken by Dischargers to address food safety concerns associated with environmental features have resulted in the removal of aquatic habitat and related management practices.
- According to a Spring 2007 survey by the Resource Conservation District of Monterey County (RCDMC), 19 percent of 181 respondents said that their buyers or auditors had suggested they remove non-crop vegetation from their ranches. In response to pressures by auditors and/or buyers, approximately 15 percent of all growers surveyed indicated that they had removed or discontinued use of previously adopted management practices used for water quality protection. Grassed waterways, filter or buffer strips, and trees or shrubs were among the management practices removed.

Indicators of Aquatic Habitat Improvement -

- Protection, restoration and enhancement of aquatic habitat and watershed functions are demonstrated to be effective for improving water quality, aquatic and wildlife habitat, aquifer recharge, and flood storage capacity.
- Grant-funded projects in the Gabilan Watershed and surrounding Southern Monterey Bay Watersheds demonstrate that wetland restoration results in improved aquatic habitat conditions measured by changes in populations of native plants and birds, and establishment of macroinvertebrate populations. Restoration projects also resulted in water quality improvement by reducing sediment loads, removing large fractions of nitrate and suspended sediment inputs, and removal of ammonia, phosphate, and diazinon.
- Restoration projects implemented in the Moro Cojo Slough indicated that agricultural runoff that ran through wetland habitats can result in greatly reduced levels of nitrate. In addition, restoration resulted in better support of native plants and animals. Greater than 40 native plant species and 22 native vertebrates were observed throughout the project sites. In addition, the following protected species were documented throughout the Moro Cojo Watershed: California Red-legged Frog, California Tiger Salamander, Steelhead, Santa Cruz Long-toed Salamander, Tidewater Goby, and Saline Clover.
- Restoration projects in the Hansen Slough area near Watsonville resulted in decreases in stream turbidity by more than 50-fold, comparing sites above and below restoration. Nitrate concentrations also decreased as water passed through the restoration area – nitrate concentrations entering the site exceeded 140 mg/L and levels leaving the site never exceeded 40 mg/L, and were frequently below 5 mg/L.

Aquatic Habitat Data and Information Gaps -

- The success of aquatic habitat protection and restoration efforts is dependent on a variety of different parameters including scale, climate, topography, flow, water quality, and other site-specific variables.

4.4 Agricultural Discharge Water Quality

Water quality of agricultural discharges is often poor, carrying nitrates at concentrations above safe drinking water levels and pesticides at concentrations above toxic levels to waterbodies in the region. Agricultural discharges contribute significantly to water quality conditions. In some cases, agricultural discharges are the sole or primary source of pollution in impaired waterbodies. Even in areas where agricultural is not the only source of pollution, it is a primary contributor.

Numerous studies document the impact of agricultural discharges on water quality and specific pollutants contained in irrigation runoff. Research conducted by the Food and Agriculture Organization of the United Nations found that irrigation return flow resulted in a significant increase in nitrogen, phosphorous, pesticide residues, and sediments.

Agricultural research conducted by University of California Cooperative Extension (UCCE) found nitrate values in agricultural tailwater at 26, 53, and 75 mg/L NO₃-N (up to 7.5 times the drinking water standard). UCCE researchers indicated that the high levels of nitrate at the site were likely caused by the grower injecting nitrogen fertilizer into the irrigation water during the 2nd and 3rd irrigation events. A UC Davis study of Salinas Valley farms found that by the second and third crop cycles, farm soils had begun to accumulate nitrogen, but that growers continued with the same fertilization schedule. In addition, soils are high enough in phosphorus that in some areas no added phosphorus is necessary; however, growers continue to add this chemical to their fields. These practices lead to excess fertilizer leaving the farm, which ultimately cause significant water quality impairment. Similar to tailwater, tile drain water with elevated nitrate levels has been found draining into surface water bodies. Nitrate concentrations in selected waterbodies in the Pajaro Valley Watershed have been found to range from 19 to 89.5 mg/l NO₃ as N (compared to the drinking water standard, 10 mg/l).

Pesticides have been detected in agricultural tailwater and routinely exceed the toxicity water quality standard (lethal to aquatic life). Regionwide, CCAMP and the Cooperative Monitoring Program have conducted toxicity monitoring in 80 streams and rivers. Some measure of lethal effect (as opposed to growth or reproduction effect) has been observed at 65 percent of the water bodies monitored.

5.0 Preliminary Draft Staff Recommendations for an Agricultural Order

5.1 Background on Agricultural Regulatory Program Implementation (2004 – 2009)

On July 9, 2004, the Central Coast Water Board unanimously adopted the 2004 Conditional Waiver, and the associated Monitoring and Reporting Program, with the support of an Agricultural Advisory Panel (including agricultural and environmental interest group representatives), and overall public support. The goal of the 2004 Conditional Waiver was to improve agricultural water quality through the implementation of appropriate management practices. The requirements of the 2004 Conditional Waiver focused on enrollment, education and outreach, development of Farm Water Quality Management Plans (Farm Plans), and cooperative water quality monitoring.

During the term of the 2004 Conditional Waiver, Water Board staff worked with the agriculture community to develop an Agricultural Regulatory Program that would progress to protect and restore surface water quality, groundwater quality, and aquatic habitat to conditions that protect all designated beneficial uses of water in areas with irrigated agricultural lands. Major programmatic accomplishments of the first five years include the following:

- Enrollment of approximately 90 percent of the Central Coast Region's total irrigated agricultural acreage under the 2004 Conditional Waiver;

- Development and Implementation of a region-wide monitoring program (CMP) to assess water quality conditions at the watershed-scale;
- Tracking program implementation for more than 1700 farming operations (including inspections at 59 farming operations, and various enforcement actions: more than 200 Notices of Violation, more than 20 water quality enforcement actions, and five Administrative Civil Liability complaints);
- Discharger development of Farm Water Quality Management Plans for over 1528 operations (72 percent of enrollees); and
- Discharger completion of water quality education courses (in total, more than 18,000 hours);

While the success of initial efforts of the Agricultural Regulatory Program to develop a Conditional Waiver with stakeholders and achieve enrollment through education and outreach is significant, the current Conditional Waiver lacks clarity and focus on water quality requirements and does not include adequate compliance and verification monitoring. Thus, desired water quality outcomes achievement is uncertain and unmeasured. At a minimum, agricultural discharges continue to severely impact water quality in most receiving waters. The Central Coast Water Board must determine how better to regulate agricultural discharges on the Central Coast to directly address the major water quality issues of toxicity, nitrates, pesticides and sediment in agricultural runoff and/or leaching to groundwater to achieve desired water quality outcomes that support all beneficial uses.

5.2 Preliminary Draft Agricultural Order – Summary of Staff Proposed Conditions

Conditions in the Preliminary Draft Agricultural Order and changes related to the 2004 Conditional Waiver are summarized in Attachment 2 and the Preliminary Draft Agricultural Order is contained in Attachment 3. Conditions in the Preliminary Draft Agricultural Order that are a clarification of conditions in the 2004 Conditional Waiver are notated as “<CLARIFICATION OF EXISTING>” in the Preliminary Draft Agricultural Order, Attachment B, Terms and Conditions. -. Conditions in the Preliminary Draft Agricultural Order that do not exist in the 2004 Conditional Waiver are notated as “<NEW>”. Conditions in the Preliminary Draft Agricultural Order without a notation are the same as conditions contained in the 2004 Conditional Waiver.

Staff developed these preliminary recommendations for an Agricultural Order by building upon the 2004 Conditional Waiver to advance efforts to improve agricultural water quality and gain compliance with applicable water quality standards. Thus, staff recommends the same regulatory tool, a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, to regulate agricultural discharges. To ensure understanding of applicable water quality standards, staff included explicit clarification of water quality discharge and compliance requirements. In addition, to improve implementation actions directly addressing the specific priority water quality issues, the Preliminary Draft Agricultural Order builds upon the development and

implementation of Farm Plans, including effective implementation of management practices (related to irrigation, nutrient, pesticide and sediment management) that will most likely yield the greatest amount of water quality protection. The Preliminary Draft Agricultural Order also builds upon the existing Cooperative Monitoring Program by retaining watershed-scale, receiving water monitoring, but adds individual monitoring and reporting to improve Water Board staff's ability to identify specific discharges loading pollutants or contributing to impacts, verify compliance with the requirements by dischargers and measure progress over time at the farm and watershed scales. The Preliminary Draft Agricultural Order focuses on reducing or eliminating agricultural discharges – especially contaminated irrigation runoff and percolation to groundwater in the most severely impaired areas. Due to the unique conditions related to irrigated lands and individual farming operations, the Preliminary Draft Agricultural Order includes multiple options for compliance to maximize Dischargers' flexibility in achieving desired water quality improvement according to a specific time schedule and specific milestones. Similar to the 2004 Conditional Waiver, the Preliminary Draft Agricultural Order also includes significantly reduced monitoring and reporting requirements for those agricultural discharges identified as having relatively low-risk for water quality impairment. The conditions for compliance, the monitoring and reporting requirements and the time schedule for compliance are summarized in the following paragraphs.

To demonstrate compliance with this Order, Dischargers must:

- Enroll to be covered by the Order
- Develop and implement a farm plan that includes management practices with certain conditions and specifications
- Eliminate non-storm water discharges, or use source control or treatment such that non-storm water discharges meet water quality standards
- Demonstrate through water quality monitoring that individual discharges meet certain basic water quality targets (that are or indicate water quality standards that protect beneficial uses). For example, non-storm water discharge monitoring should find:
 - No toxicity
 - Nitrate ≤ 10 mg/L NO₃ (N)
 - Turbidity ≤ 25 NTUs
 - Un-ionized Ammonia < 0.025 mg/L (N)
 - Temperature $\leq 68^{\circ}\text{F}$
- Demonstrate through water quality monitoring that receiving water is trending toward water quality standards that protect beneficial uses or is being maintained at existing levels for high quality water
- Farm operation must support a functional riparian system and associated beneficial uses (e.g., recreational uses like swimming, wading, or kayaking, fishing, wildlife habitat, etc.)

5.3 Preliminary Draft Monitoring and Reporting Requirements

Water quality monitoring for the Preliminary Draft Agricultural Order is required by California Water Code Section 13269. Monitoring requirements are designed to support the implementation of the Preliminary Draft Agricultural Order (specifically as a Conditional Waiver of Waste Discharges). Monitoring must verify the adequacy and effectiveness of the Order's conditions. Monitoring information and data must be reported to the Water Board. The reporting requirements that staff recommends with the Preliminary Draft Agricultural Order include all farm operations to report on management practice implementation at the time of enrollment, to report on management practices at least once during the period of the Order, to update their farm plans annually with monitoring and site evaluation results, and to update their plans annually with specific adjustments in response to any results that indicate unacceptable progress (e.g., do not meet interim milestones set forth in the Order).

The current monitoring program for the 2004 Conditional Waiver uses a third party for meeting all monitoring and reporting requirements (Preservation, Inc., the nonprofit organization that implements the Cooperative Monitoring Program). Under the current monitoring and reporting program, Dischargers are responsible for monitoring and reporting either individually or collectively, and they must comply with the requirements of the Board-approved Monitoring and Reporting Program. The preliminary draft monitoring and reporting requirements provide for Dischargers to continue to use a third party as long as the third party is approved by the Executive Officer.

The existing monitoring program does not collect sufficient information regarding:

- Groundwater quality
- Pollution source identification
- Individual compliance
- Terrestrial riparian conditions

To address the critical need for additional data for groundwater quality, source identification, source control and/or compliance and riparian condition, Water Board Staff considered various monitoring options.

In the Preliminary Draft Agricultural Order, Water Board staff recommends a monitoring program that requires four categories of monitoring: Individual Discharge Characterization Monitoring, Individual Discharge Monitoring, Watershed (receiving water) Monitoring, and Additional Monitoring if required by the Executive Officer (receiving water and/or discharge). Staff recommends this monitoring program because it:

- Addresses all surface water (tailwater, tile drain water, stormwater, etc) and groundwater
- Provides complete identification of individual operations responsible for discharge
- Allows for immediate management of known discharges with the potential to impact water quality

- Limits costs for farms that are in compliance
- Prioritizes further regulatory action on farms that are not progressing toward compliance
- Uniformly distributes costs for trend and stormwater monitoring across all growers resulting in similar costs for all growers based on acreage farmed
- Provides data for surface and groundwater trends, individual compliance, management practice implementation, riparian protection, and stormwater
- Allows data collection, analysis, and reporting to be performed by a non-regulatory single third party
- Provides follow up monitoring to identify and mitigate known discharges with the potential to impact water quality

The following paragraphs describe each of the four categories of monitoring recommended.

Individual Discharge Characterization Monitoring-

To establish the need for one time and/or continuous monitoring at an individual farm operation, farm operations (Dischargers) will be required to evaluate their farms individually. The first step under this option is a requirement that all farm operations conduct an “individual discharge characterization” of their farm operation. The characterization will require a farm operation to identify if they have non-stormwater discharge(s) to either surface or ground water. Examples of non-stormwater discharges include agriculture tailwater, irrigation runoff, tile drain water, pond water discharge, ponded furrows, and/or another intermittent agriculture water discharge.

If a farm operation verifies that it does not have any non-stormwater discharge, that farm operation is not required to conduct any individual discharge water quality monitoring. Each operation without an identified non-stormwater discharge must conduct watershed monitoring for stormwater and long-term in-stream trends.

If a farm operation has an identified non-stormwater discharge to either surface or ground water, that discharge must be sampled and analyzed for the following discharge characterization parameters:

- Flow
- Toxicity
- Total Nitrogen (mg/L)
- Nitrate-Nitrite (mg/L)
- Total Ammonia (mg/L)
- Ortho-Phosphosphate (mg/L)
- Turbidity (NTU)
- Water Temperature (degrees C)
- pH
- Total Dissolved Solids (mg/L)

The following parameter must be calculated (based on Ammonia and pH):

- Un-ionized Ammonia (mg/L)

Staff and the discharger will use this information to assess the discharge to surface and/or ground water. If the discharge characterization demonstrates the discharge is impairing or has potential to impair surface and/or groundwater (load pollutants at levels that would cause exceedance of water quality standards to protect beneficial uses), that pollutant discharge must be eliminated. If the discharge flow can not be eliminated, the discharge must be treated or controlled to meet water quality standards to be protective of ground and surface water beneficial uses (within a time-frame specified in the Order), and must be monitored as described under “individual discharge monitoring” below.

Individual Discharge Monitoring-

For a farm operation with continuous discharge(s), the discharge(s) must be monitored until the discharge(s) is terminated or controlled so that it meets water quality standards (within a time frame specified in the Order). Data collected through individual monitoring will be used to verify that individual operations are progressing towards or have succeeded to eliminate or adequately control discharges that are impacting waters of the state and associated beneficial uses. If individual discharge monitoring demonstrates discharges are loading significant amounts of pollutants to receiving waterbodies that are already impaired (exceed water quality standards that protect beneficial uses) or that have water quality conditions at or better than water quality standards currently supporting beneficial uses, the Discharger must use additional source control/pollutant reduction (compliance is defined by time frames specified in the Order).

A third-party monitoring group can fund or perform this monitoring on behalf of individual dischargers. Individual agriculture operations identified through Individual Discharge Characterization or Follow-up monitoring efforts as the source of pollution must implement additional management practices or improve implementation of current practices for the protection of water quality and associated beneficial uses.

If management practice implementation fails to eliminate a source of pollution or bring a discharge in compliance with applicable water quality standards, the Water Board may pursue enforcement to bring the discharge into compliance with water quality standards.

Watershed Monitoring Program-

Sites on main stems of rivers and tributaries in agricultural areas of the region must be monitored on a regular basis to evaluate in-stream stormwater trends and long-term trends in water quality and associated beneficial uses. All Dischargers must conduct watershed monitoring program.

The watershed monitoring program must collect samples at a core network of receiving water sites. For the watershed monitoring component of the monitoring requirements, Dischargers may recommend monitoring sites or constituents to best characterize potential agricultural impacts that the Executive Officer must approve to be effectuated. Similarly, the Executive Officer may require changes to the sites or waste constituents, or other aspects of the watershed monitoring program, to better characterize agricultural

impacts, identify sources of pollution, or better characterize stream water quality (See discussion of Additional Monitoring below).

Surface Water

Representative surface water samples shall be collected and analyzed for the parameters listed in Attachment 4. Also, two stormwater events shall be monitored for the parameters listed in Attachment 4 during the rainy season (October 15 – March 15). Rainy season sampling is typically conducted during or shortly after runoff events, preferably including the first event that results in significant flow increase.

Groundwater

At a minimum, all Dischargers must sample their own irrigation wells and drinking water wells annually. Sampling must include collection and analyses of data for nitrate and TDS, at a minimum.

Additionally, individual Dischargers (or approved third party on their behalf) must develop a plan to monitor groundwater to characterize groundwater quality in agricultural areas including:

- current representative conditions of groundwater quality,
- more specific groundwater quality along general groundwater flow paths (where water is recharged to where it discharges, e.g., into streams or wells), and
- trends in groundwater quality
- impacts to beneficial uses (or protection of beneficial uses).

The proposed groundwater monitoring plan may rely on existing groundwater wells and may include existing monitoring efforts around the region to document groundwater quality. The proposed groundwater monitoring plan must be submitted to the Water Board Executive Officer by March 1, 2012.

To be an acceptable third-party, the monitoring group must:

- Be responsible for implementing monitoring and reporting program.
- Report names of participating dischargers.
- Report any dischargers who cease to comply with requirements.
- Comply with a Quality Assurance Program Plan and monitoring plan approved by the Water Board's quality assurance officer.
- Submit all data (daily, monthly, quarterly, etc.) to the Water Board; the data submission shall conform to criteria approved by the Central Coast Regional Water Quality Control Board Executive Officer.

Additional Monitoring required by the Executive Officer

At the direction of the Water Board Executive Officer, individual Dischargers or an approved third party must conduct Follow up monitoring in areas identified as problematic through Individual Discharge Monitoring, Watershed Monitoring, and the Central Coast Ambient Monitoring Program. This monitoring must be conducted to identify the source of pollution and monitor any identified discharges associated with

agriculture operations to surface or ground water, including discharges to streams, discharges to tail-water ponds, and stormwater runoff.

5.4 Proposed Time Schedule for Compliance

Water Board Staff considered a time schedule that would support timely and effective implementation. Under this Preliminary Draft Agricultural Order, either irrigation runoff will need to be eliminated within two years of adoption of the Order or the following pollutants in irrigation runoff will need to be eliminated and/or treated or controlled to meet applicable water quality standards by the dates specified:

- Toxicity – within two years of adoption of the Order
- Turbidity – within three years of adoption of the Order
- Nutrients – within four years of adoption of the Order
- Salts – within four years of adoption of the Order

Additionally, dischargers must implement management practices to reduce pollutant loading to groundwater.

Staff recommends the time-schedule in this Preliminary Draft Agricultural Order as a reasonable starting point to improve water quality. This schedule acknowledges that to fully control all discharges and achieve compliance will take longer than the five years of this Preliminary Draft Agricultural Order. In a separate, but related effort regarding regulation of agricultural discharges, staff is evaluating and developing a time schedule for actions and to meet interim milestones that extends out to 2025.

6.0 Preliminary Draft Environmental Analysis Pursuant to the California Environmental Quality Act (CEQA)

Consistent with CEQA, staff prepared a preliminary draft environmental impact analysis, currently in the form of an Initial Study, including an environmental checklist. See Attachment 5.

The project evaluated in this Initial Study/Environmental Checklist is the Preliminary Draft Irrigated Ag Order, which is a revised Conditional Waiver of Waste Discharge Requirements and the requirement to submit a report of waste discharge.

The preliminary draft environmental impact analysis contains the following information relating to the Preliminary Draft Irrigated Ag Order:

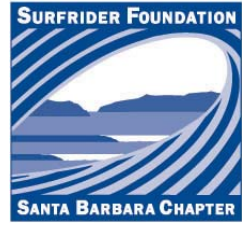
1. A description of proposed activity and proposed alternatives ,
2. An environmental checklist,
3. An initial evaluation of potentially significant environmental impacts.

7.0 References

Staff consulted several references in preparing the report on water quality conditions and the Preliminary Draft Agricultural Order. A list of those references is included as Attachment 6.

S:\Seniors\Shared\Agricultural Regulatory Program\Ag. Order 2.0\February 1 2010 Docs\Final Documents\Preliminary Report_020110.doc

EXHIBIT H



April 1, 2010

Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

RE: Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands

Dear Board Members:

We offer these comments on the Draft Order implementing the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Draft Order). The Environmental Defense Center (EDC), Monterey Coastkeeper (MCK), Ocean Conservancy and Santa Barbara Channelkeeper (SBCK) support a conditional waiver program that contains robust regulatory provisions to ensure that our waters are protected from agricultural discharges. In general, we are very supportive of the direction that staff has taken. We offer additional suggestions to make the Draft Order even more protective of water quality, drinking water standards, associated public trust resources and the wider range of beneficial uses.

EDC is a non-profit public interest law firm that represents community organizations in environmental matters affecting California's south central coast. EDC protects and enhances the environment through education, advocacy and legal action.

MCK protects the water, watersheds and coastal ocean for the benefit of wildlife and human populations alike. MCK serves Monterey and Santa Cruz counties including the northern Salinas and Pajaro river basins. Monterey Coastkeeper is a program of The Otter Project.

Through science-based advocacy, research and public education, Ocean Conservancy informs, inspires and empowers people to speak and act for the oceans. Ocean Conservancy is headquartered in Washington, DC, and has offices in Florida, the Gulf of Mexico and the Pacific, including Alaska, with support from more than half a million members and volunteers.

Environmental Defense Center
906 Garden Street
Santa Barbara, CA 93101

Monterey Coastkeeper
475 Washington St., Suite A
Monterey, CA 93940

Santa Barbara Channelkeeper
714 Bond Avenue
Santa Barbara, CA 93103

SBCK is a non-profit environmental organization dedicated to protecting and restoring the Santa Barbara Channel and its watersheds through citizen action, education, field work and enforcement. Channelkeeper has nearly ten years of experience in conducting citizen water quality monitoring activities in agricultural watersheds.

EDC, the Ocean Conservancy and SBCK participated in the original stakeholder process which informed the existing Ag Order, and EDC, MCK and SBCK participated in the 2009 stakeholder process convened by staff to discuss the next iteration of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands. We have also engaged other Central Coast public interest organizations in this process, including organizations that focus on water quality and related issues.

I. The 2008-2009 Stakeholder Process

Staff convened the Agricultural Advisory Panel monthly for more than a year, with fifteen individuals and organizations representing agricultural interests, a representative of the Monterey Bay National Marine Sanctuary, a representative from UC Davis, and representatives from four environmental organizations. Panel representatives were repeatedly encouraged to communicate with their constituent groups, and the newsletters published by Water Quality Preservation, Inc. and the various Farm Bureaus indicate that this outreach charge was taken seriously.

Although the Agriculture Advisory Panel did not reach consensus on a new Conditional Waiver, the Draft Order contains many of the elements discussed during 2009, including:

- A focus on dischargers with tailwater;
- A focus on dischargers in sub-watersheds with impairments;
- A common understanding of the value of individual monitoring (although there was no consensus on reporting of individual monitoring);
- Agreement that toxicity was more easily addressed than nitrate pollution;
- Agreement that nitrate groundwater pollution was a pervasive problem that would take more time to address;
- Agreement that growers did not want “one size fits all” management practices dictated to them; and
- Agreement that the RWQCB should actively enforce the Order.

II. The Existing Conditional Waiver

The Agricultural Advisory Panel reviewed the existing waiver on numerous occasions. Several themes consistently emerged.

Enforcement

A serious problem under the existing Conditional Waiver is a lack of adequate enforcement on both enrolled and non-enrolled growers. Currently, there exists no database of growers and the actual plots they farm.

The current program requires that Best Management Practices (BMPs) be implemented on-site to minimize the quantity and improve the quality of agricultural discharges. BMP implementation, however, varies from site to site by necessity depending on site-specific concerns. As a result, without defined water quality standards for discharges to surface and groundwater, it is impossible to determine whether or not agricultural operations are contributing to exceedances of basin plan objectives in surface water bodies.

The current program lacks standards and mechanisms pertaining to stormwater discharges. Crops such as strawberries are especially problematic, as ground is covered with impervious plastic during the rainy season which increases water volumes and velocities running through furrows and ditches – especially on steeper slopes. Grapes are also difficult as rows are planted with little regard to slope.

There is particularly a gap in the current program when it comes to stormwater discharges from fallow agricultural fields. BMPs are frequently not implemented when agricultural fields are not in operation. From a stormwater quality perspective, fallow agricultural fields present a similar risk to surface water quality as would a large construction site.

The existing Conditional Waiver expresses no vision for maintenance of vegetated buffer areas between farm fields and aquatic habits. With the current focus on ‘food safety’ there are documented cases of removal of riparian vegetation. The riparian corridor along our creeks and rivers is the ultimate vegetated buffer before runoff enters our open waters. These riparian areas offer many public benefits including improvement of water quality.

Water Quality Monitoring

While the Cooperative Monitoring Program (CMP) has produced useful data, a critical weakness in the existing Conditional Waiver is a lack of individual discharge monitoring. Ambient data produced through the CMP does allow the Regional Board and stakeholders to identify general long-term water quality trends; however the data does not allow us to identify specific sources.

Some methodologies are flawed. For example, the CMP currently collects dissolved oxygen measurements in the middle of the day. Due to diurnal fluctuations in dissolved oxygen, measurements collected in the middle of the day do not accurately diagnose potential anoxic conditions and are actually misleading. In order for such measurements to be valid they must occur during periods when dissolved oxygen can be expected to be at a minimum,

usually before dawn. Ideally, such measurements would be collected continuously throughout the day to capture the extent of diurnal fluctuation.

There is a widespread gap in the availability of groundwater quality data throughout the region. Groundwater is directly linked to surface water quality through surface-to-groundwater interactions and through tail water discharges. Without groundwater data, the Regional Board and stakeholders are unable to evaluate whether the current program is improving groundwater quality over time. Without groundwater data, it is also impossible for growers to make certain informed decisions regarding nutrient management.

Reporting

Water quality data that is received by Central Coast Region staff is not always complete or available in a useful format. Part of this problem stems from a lack of on-farm data. The information also has not been made generally available to the public.

Enrollment

While enrollment numbers are high, there are significant numbers of growers and operations that are not enrolled in the existing Conditional Waiver. For the program to be ultimately successful there must be a higher rate of participation. It is far too easy for a small number of bad actors to spoil an otherwise productive regulatory program. It is inaccurate to state that any percentage of the dischargers or any percentage of the land is enrolled. The reality is that we don't really know. Without better data, it is impossible to identify the gaps.

III. Water Quality Response to the Existing Conditional Waiver

Results from both the Cooperative Monitoring Program and CCAMP water quality testing are contained in the February 1, 2010 report, "Preliminary Draft Report on Water Quality Conditions in the Central Coast Region Related to Agricultural Discharges." These findings indicate:

- In the Central Coast Region, thousands of people are drinking water contaminated with unsafe levels of nitrate or are drinking replacement water to avoid drinking contaminated water. The cost to society for treating and/or avoiding polluted drinking water is estimated to be in the hundreds of millions of dollars.
- Some positive reductions in nitrate pollution are occurring in the Santa Barbara region; improvement is possible.
- Endemic aquatic organisms in large stretches of rivers in the region's major watersheds have been severely impaired or completely destroyed by severe toxicity from pesticides.
- Agricultural water quality impairments are widespread. For example, the 2008 Clean Water Act Section 303(d) List of Impaired Waterbodies for the Central Coast Region (Impaired Waters List) identified surface water impairments for approximately 167 water quality limited segments related to a variety of pollutants (for example, salts,

nutrients, pesticides/toxicity, and sediment/turbidity). Sixty percent of the surface water listings identified agriculture as one of the potential sources of water quality impairment.

- Nitrate concentrations in areas that are most heavily impacted are not improving in a significant or widespread manner and a number of sites in the lower Salinas and Santa Maria watersheds appear to have become more polluted over the past five years.

The Preliminary Draft Report on Water Quality Conditions finds that there is enough high quality data to make the above findings with statistical certainty. In short, we believe that conditions have not improved generally, and conditions in bad areas are becoming worse. We acknowledge that some areas – notably areas with less intense row crop agriculture – are showing some signs of water quality improvement.

IV. The Draft Order Improves Upon the Existing Conditional Waiver

In the Draft Order, water quality standards are enumerated for discharges to surface water and groundwater, including stormwater. This should clarify for some growers that the Conditional Waiver does in fact regulate discharges to surface and groundwater.

Timelines for compliance are explicit and liberal.

- Elimination of tailwater within two years if near impaired waterbody. Growers have been informed by their peers that elimination of tailwater was an essential practice and irrigation management and use of tailwater ponds is standard procedure for most growers.
- Elimination of toxicity within three years. Toxic discharge is illegal, and modern pesticides degrade quickly.
- Eliminate sediment runoff within three years. Reducing soil loss and erosion is a common and accepted practice.
- Eliminate nitrate and salt in runoff above water quality standards within four years.
- Eliminate discharge of nitrate and salt to groundwater above water quality standards within six years.

We agree with the new emphasis on clear standards and timelines, as opposed to an emphasis on training and education. The CCRWQCB is a regulatory agency; there are multiple agencies and organizations – such as the NRCS and UC Davis – offering practical advice to growers. The CCRWQCB should set standards and targets and let the growers decide how to meet them.

We very much appreciate the staff recommendation to include riparian protection, setbacks and vegetated buffers in the new Conditional Waiver. Riparian areas are literally the ultimate buffer and water quality treatment before farm runoff reaches our creeks and streams.

In areas with high levels of contaminants in groundwater where growers continue to discharge waste, the staff draft recognizes the authority of Water Code Section 13304 that states the RWQCB can require clean up, remediation or abatement. Pollution of groundwater by agriculture represents a transfer of costs from agricultural to urban users who share the groundwater. The Draft Order recognizes both the seriousness of the problem and the length of time needed to see improvement. The Draft Order requires growers to discharge below the drinking water standard within six years, and also recognizes that the drinking water standard is not entirely protective of aquatic life. The staff approach is reasonable and balanced.

The Draft Order includes new provisions that require “Individual Discharge Characterization Monitoring” and provisions related to groundwater monitoring. This recommendation is consistent with the Agricultural Panel recommendation that “every grower should know what is in their water.”

V. The Draft Order Should Be Even More Protective Of Water Quality And Associated Public Trust Resources

The citizens of the Central Coast deserve clean water, and the Regional Water Board is required by mandate to draft an Order that is protective of water quality and associated public trust resources.

[T]he health, safety and welfare of the people of the state requires that there be a statewide program for the control of the quality of all the waters of the state [and] the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation

[T]he state board and each regional board shall be the principle state agencies with primary responsibility for the coordination and control of water quality.

(Cal. Water Code § 13000, 13001.)

In particular, the Regional Water Board regulates both point and non-point sources of water pollution. “Any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state” must file a report of the discharge to the Regional Water Board. (Cal. Water Code § 13260.) The Regional Water Board must then “prescribe requirements as to the nature of any proposed discharge [or] existing discharge.” The requirements shall take into consideration “beneficial uses to be protected,” “water quality objectives reasonably required for that purpose,” “other waste discharges,” and “the need to prevent nuisance.” (Cal. Water Code § 13263.)

Beneficial uses are described by the Central Coast Region Basin Plan and include: agricultural supply, cold fresh water habitat, preservation of biological habitats of special significance and migration of aquatic organisms. Surface water bodies that do not have

designated beneficial uses are protected for both “municipal and domestic water supply” and “protection of both recreation and aquatic life.”

Section 13269 provides that the requirements of Sections 13260 and 13263 “may be waived by the state board or a regional board as to a specific discharge or type of discharge if [it is determined] that the waiver is consistent with any applicable state or regional water quality control plan and is in the public interest.” According to Subsection 13269(a)(2), waivers may not exceed five years in duration and must be conditional. Conditions include “the performance of individual, group, or watershed based monitoring Monitoring results shall be made available to the public.”

Components that are new to the Draft Order include greater protections for aquatic/riparian habitats and requirements for individual monitoring. These conditions are necessary for the Draft Order to be consistent with the Central Coast Region Basin Plan and for the Order to be “in the public interest.”

Generally, stormwater protections should be much stronger. There is little difference between a massive construction site with earth laid bare and a fallow field. Mandatory best practices should be prescribed including: (1) cover cropping during fallow months; and (2) on slopes, rows should be laid out to reduce erosion and runoff velocities.

Many stakeholders agree that the Conditional Waiver should be better enforced. A second document should accompany this Order, realistically detailing staff’s plan to identify irrigated properties under production and how the owners or growers will be brought into compliance. The Enforcement Plan should detail how many farms will be inspected or audited each year, how quickly monitoring results will be made available to the public, how staff will handle the sheer volume of paperwork created from operations that are rotated annually, etc. The Enforcement Plan should have transparent, measurable goals.

Entities that guide and/or represent the Conditional Waiver should be inclusive and transparent. For example, the Agricultural Monitoring Committee should be opened to non-industry stakeholders, such as conservation organizations and scientists, in order to preserve the integrity of the Order and ensure its success.

In addition, the following changes should be made to the Staff Recommendations for the Agricultural Order:

- Attachment 3, Pages 23 and 34: Erosion and Sedimentation. We commend the SIP program for the advances it has made in reducing irrigation demands and pesticide use, and we anticipate that other commodity groups will follow SIP’s lead. However, we are not aware of any SIP requirement to reduce erosion and sediment in stormwater. Vineyards can be found on steep terrain and can have rows aligned in a way that increases stormwater runoff velocities. Knowing that some commodity groups are likely to seek similar “low-risk” designations and exemptions, we would suggest that the definition of low-risk be amended to include storm water protections

including alignment of rows to minimize runoff velocities and use of cover crops to hold soils in place.

- Attachment 3, Page 34: “Sampling.” We are concerned that within the definition of monitoring the word “sampling” is occasionally used. It is our understanding that sampling results do not necessarily need to be reported while “monitoring” results must be reported and disclosed. Generally, all monitoring should be disclosed (except individual reporting postponed under Section 16). The term “monitoring” should be used consistently.
- Attachment 3, Page 39: “Waters of the State.” We believe there would be value added to bringing consistency to the many definitions of streams and waterways. For example, the National Marine Fisheries Service (http://www.nmfs.noaa.gov/pr/pdfs/pesticide_biop.pdf, page 393) definition of salmonid habitat contains helpful elements that should be incorporated into the Conditional Waiver: “[F]reshwater habitats include intermittent streams and other temporally connected habitats to salmonid-bearing waters. Freshwater habitats also include all known types of off-channel habitats as well as drainages, ditches, and other manmade conveyances.” (Emphasis added).
- Attachment 3, Page 54: “Collective Progress.” The proposed Terms and Conditions (Attachment B), Part A, Section 16 states that, “The Executive Officer may postpone individual reporting of Individual Discharge Monitoring data . . . in cases where all Discharges in a watershed or sub-watershed are achieving collective progress towards compliance and meeting milestones per the defined time schedule.” Regional Board staff needs to specifically define what criteria will be used to determine whether “collective progress” is being achieved.
- Attachment 3, Page 63: Pesticide Runoff/Toxicity. The two year timeline is too liberal. The pesticides known to be causing toxicity impairments degrade in weeks or a few months. We believe that with good pesticide practices, toxicity can be eliminated very quickly. In accordance with law, discharge of toxic substances should be prohibited.
- Attachment 3, Page 68: Nurseries. We agree with others who have already pointed out that the current text should be edited to allow rainwater to fall on containerized plants. We are confident this obvious oversight will be corrected.
- Attachment 3, Page 69 at Section 77: Public Disclosure. Similar to our comment on monitoring, we are concerned that “sampling” may not require public disclosure. We suggest that either the term monitoring be used or the phrase “public disclosure” be incorporated into this section.
- Attachment 3, Surface Water Quality Objectives, Page 43. We are concerned that water quality objectives for biostimulatory substances to protect all surface waters do

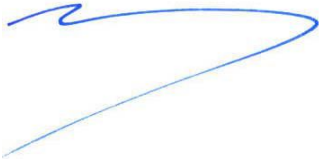
not apply to agricultural discharges but only to receiving waters as indicated by the lack of a double asterisk (**) in table 1A. While the 10 mg/L NO₃-N objective does apply to discharges, we believe it is extremely likely most existing beneficial use impairments related to nitrate concentrations will continue under this scenario. In place of a strict numeric discharge limit of 1 mg/L NO₃-N to allow for situations in which the volume of tail water has been reduced to a minimal level so that discharges 1>10 mg/L do not impact beneficial uses of receiving waters, we recommend that the Regional Board develop a stream-flow weighted discharge objective.

- Attachment 3, Surface Water Quality Objectives, Page 42. We are similarly concerned that water quality objectives for potentially toxic substances including organic chemicals, chromium, cadmium, copper, lead, mercury, nickel, and zinc do not apply to agricultural discharges but only to receiving waters. We find it difficult to imagine a scenario where discharges exceeding objectives for these parameters would not be impairing or potentially impairing beneficial uses, therefore requiring elimination, treatment, or control per the language in Attachment 1, Page 23.
- Attachment 4, Page 1: E. Coli Data. The Regional Board should take care to ensure that E. coli data collected by the growers is reported as E. coli data, and not “Fecal Coliform” data. The two parameters are not synonymous and should not be used interchangeably. Further, E. coli data submitted to the regional board to fulfill Attachment 4 monitoring requirements should not be compared to Basin Plan objectives for Fecal Coliform (listed in Attachment 3) to determine compliance. This inappropriate and misleading comparison has been commonly made by the Regional Board, permittees, and dischargers, and the Board should take this opportunity to provide clarity and consistency to one of its regulatory programs.
- Attachment 4, Page 1: Dissolved Oxygen Data. The Board needs to insert an additional timing condition to the requirement to collect dissolved oxygen data. Due to diurnal fluctuations in dissolved oxygen, measurements collected in the middle of the day do not accurately diagnose potential anoxic conditions and are actually misleading. In order for such measurements to be valid they must occur during periods when dissolved oxygen can be expected to be at a minimum, usually before dawn. Since nutrient impairments are one of the major issues facing water bodies throughout our region, the monitoring program needs to collect information that will determine whether or not eutrophication from nutrient enrichment is occurring. This is a major flaw in the current monitoring program that needs to be corrected by this updated Order.

Conclusion

We appreciate this opportunity to comment on the Draft Order. If you have any questions, please do not hesitate to contact any of our organizations.

Sincerely,

A blue ink handwritten signature, appearing to read 'N. Alley', with a long horizontal stroke extending to the right.

Nathan G. Alley
Staff Attorney
Environmental Defense Center

A blue ink handwritten signature, appearing to read 'S. Shimek', with a stylized, cursive script.

Steve Shimek
Executive Director
Monterey Coastkeeper

A black ink handwritten signature, appearing to read 'Kaitilin Gaffney', in a cursive script.

Kaitilin Gaffney
Director, Pacific Ecosystem Protection
Ocean Conservancy

A black ink handwritten signature, appearing to read 'Ben Pitterle', in a cursive script.

Ben Pitterle
Director of Watershed Programs
Santa Barbara Channelkeeper

/s/

Sandy Lejeune
Chair
Surfrider Foundation, Santa Barbara Chapter